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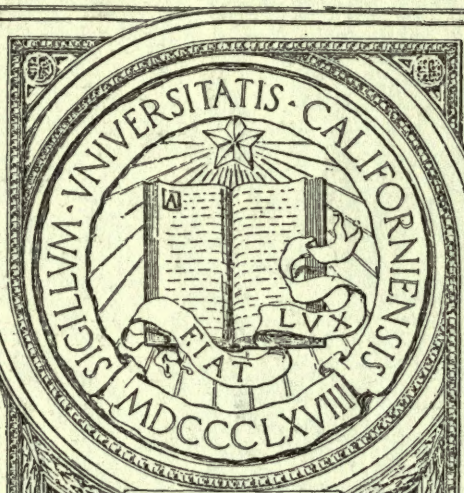
EXPORT REGISTER

FEDERATION OF BRITISH INDUSTRIES

1920

GIFT OF



EX LIBRIS

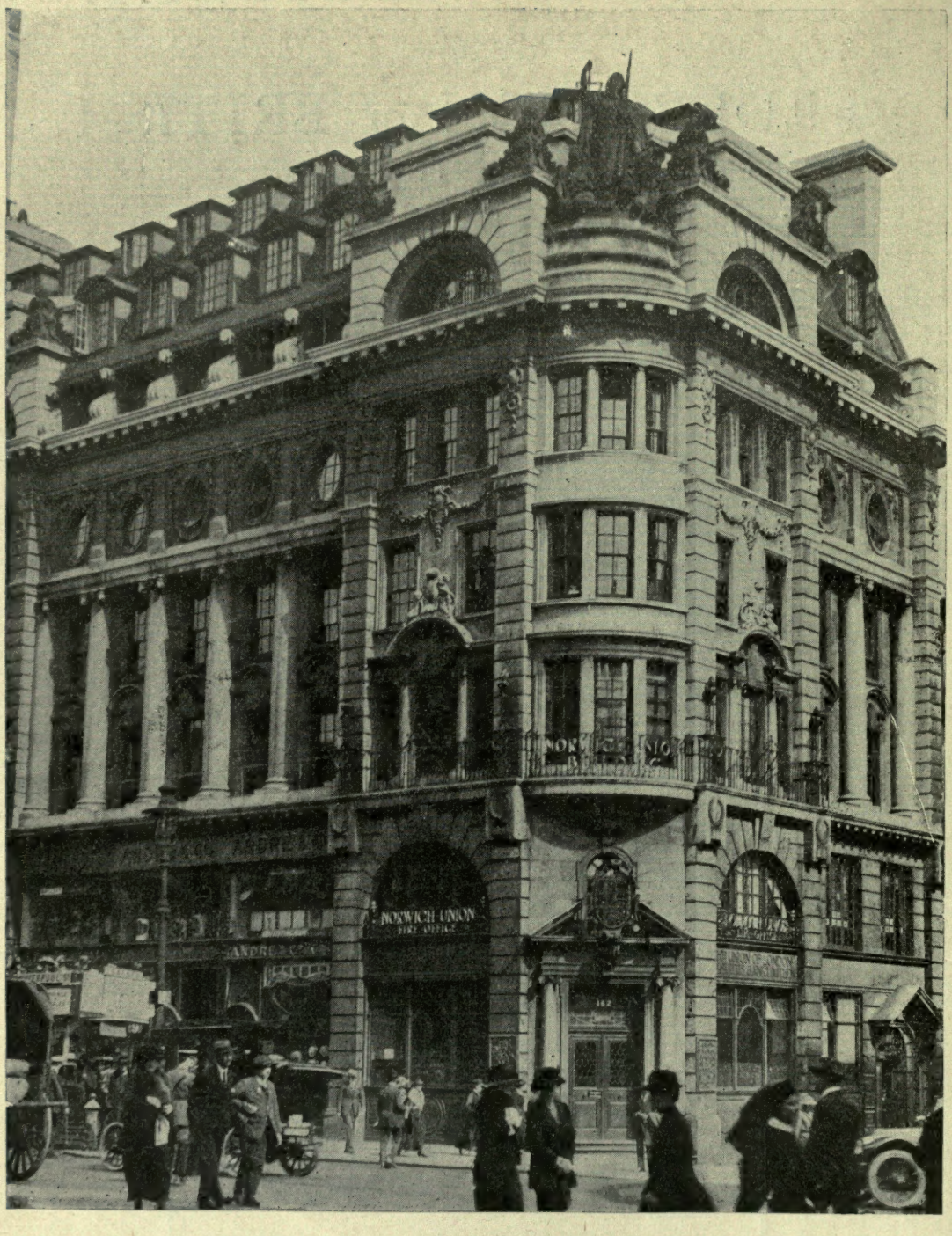
Gift of Federation of
British Industries

EXPORT REGISTER
of the
FEDERATION *of* BRITISH INDUSTRIES

QUALIFICATION OF MEMBERS

ANY person, company, corporation, partnership or association, who or which is itself a British subject or a British Company, Corporation, Partnership or Association, established in any part of the British Dominions (whether in Great Britain or overseas) and is to a substantial extent a producer itself or by its members of goods or commodities for sale or mainly engaged in an industry serving or providing for the needs of manufacturers or producers, and is considered eligible by the Executive Committee of the Federation, shall be qualified to be elected. Provided that the Executive Committee of the Federation shall have full power to decide (acting on such evidence or information as it thinks fit) whether any person, company, corporation, partnership or association is eligible for election under the terms of this rule—*Extract from the Rules of the Federation of British Industries.*

Published for the Federation of British Industries by:
INDUSTRIAL PUBLICITY SERVICE LTD., 4-7, *Red Lion Court*, LONDON, E.C. 4.



HEAD OFFICES OF THE FEDERATION OF BRITISH INDUSTRIES
39, St. James's Street, London, S.W. 1.

Elsewhere throughout Great Britain district offices are established: at Birmingham, Bradford, Bristol, Leeds, Leicester, Liverpool, Maidstone, Manchester, Newcastle, Northampton, Nottingham and Sheffield in England; and at Aberdeen, Dundee, Edinburgh and Glasgow in Scotland; and at Swansea in Wales; and at Belfast in Ireland.

EXPORT REGISTER
of the
FEDERATION OF BRITISH INDUSTRIES

LONDON
THE FEDERATION OF BRITISH INDUSTRIES
39, St. James's Street, London, S.W.1.
1920

HF350
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HOW TO USE THIS BOOK

THE Export Register of the Federation of British Industries has been arranged to give the book the maximum of utility to buyers, and to make it of easy reference to all who consult it. With this object in view it has been divided into different Sections, each with its distinctive heading, and the items of these sections are given cross-references to other sections. Thus the reader can readily glance through any one section of the book, or follow the reference to an individual firm or association or article throughout every section.

Lists of Products.

To illustrate the use of this section, we shall imagine that the buyer wishes to ascertain the leading British firms manufacturing Pumps. He will turn to the "List of Products" Section, which begins on page 185. Following the alphabetical order he will find Pumps sub-divided as follows:—Pumps, Acid and Chemical; Pumps, Air; Pumps, Bilge; Pumps, Centrifugal; Pumps, Electric; Pumps, Feed; Pumps, Fire; Pumps, Hand; Pumps, Hydraulic; Pumps, Irrigation; Pumps, Mining; Pumps, Oil; Pumps, Pressure and Test; Pumps, Rotary; Pumps, Semi-rotary; Pumps, Sewage and Sludge; Pumps, Steam; Pumps, Turbine; Pumps, Vacuum. Presuming that he requires "Pumps, Centrifugal," he will find under this special heading the names of nineteen British firms manufacturing this particular type of pump.

List of Companies, Firms and their Agents.

The next step is naturally to ascertain the Address, Cable, Code, etc., of the firm or firms making the article required, and also their Agents Overseas. All this information is provided in the section commencing on page 79 entitled: "F.B.I. Members, Companies and Firms." Here the buyer will find in alphabetical order everything necessary to enable him either to address the nearest agent of the firm in question, or to write to the manufacturer direct. In many cases it will be found that firms have used the advertising pages in the final section of the book to give amplified details of manufactures designed for particular markets, their Trade Marks, and other information of the utmost value to a prospective buyer.

List of Associations.

Let us suppose that the buyer when he turns to List of Products is unable to find the particular speciality for which he is searching. In such case he should turn to the section dealing with the great British Trade Associations (page 39) arranged alphabetically under the Industrial Grouping System devised and adopted by the Federation. In this way it becomes simple to find the Trade Association among whose members may be some manufacturing the speciality required. Having found the Trade Association, the buyer can write to its Secretary, at the address given, stating his needs, and asking to have his enquiry forwarded to the proper quarter.

With each Association are given the names of its Exporting Members, any or all of whom may be addressed care of the Association Secretary. If the buyer be still at a loss he should write direct to the General Secretary of the Federation of British Industries, at 39, St. James's Street, London, S.W. 1, who will forward his enquiry to the proper quarter.

Advertisement Section.

Reference has already been made to the importance and value of the advertisement section, as amplifying the details given in other portions of the book. These advertisements are inserted by both individual firms and Associations holding direct membership in the Federation of British Industries, and who alone are thus entitled to place their advertisements here. This Section has been compiled with the very greatest care, and its pages should be read in close connection with the earlier pages. It will be noted that many of the pages are shown in colour, which enables the advertiser at times to reproduce the actual appearance or texture of his goods.

Industrial Grouping System.

Finally, the reader should study attentively the opening chapters of the book (pages 1–38) which deal not only with the formation of the Federation of British Industries, but also with the Industrial Grouping System on which its Constitution is founded. Indeed, the Industrial Grouping System forms the basis on which is elected, as becomes a democratic nation, the Grand Council of the Federation, a veritable Parliament of Industry.

INTRODUCTION

AN epitome of all British industry is provided by this EXPORT REGISTER of the Federation of British Industries. Every important manufacture in the United Kingdom is represented by firms who are full Members. Further, the Federation itself is truly national in scope, by reason of the enormous variety of interests embraced through the Trade Associations which have membership in it, with their many thousands of members.

The EXPORT REGISTER of the Federation of British Industries is the first book of its class to give a comprehensive survey of the vast field of British industry within the limits of a single pair of covers, and to provide the kind and quantity of information, of great practical utility to buyers, such as is found on its pages. This book, which is the first official publicly circulated presentation of the Federation's Constitution, organisation and objects, and of the list of its members, with their manufactures helpfully classified, may truthfully claim to fill a gap occupied by no other work.

The book is designed, not only to reflect the organisation of the Federation of British Industries, but also, in the first place, to be of real service to all who use or buy British goods throughout the world, whether at home or overseas. For this reason, the very greatest care has been taken in the compilation of the List of Products Section, and a group of specialists was employed for many months working out, in conjunction with the manufacturers themselves, the main headings which should appear in such a List.

It should be clearly understood, however, that this List, comprehensive as it is, does not pretend to deal in detail with many specialities which buyers look to obtain from the workshops of Great Britain. To have attempted this task would have been to overload the book. Moreover, there already exist many handbooks, issued by the Trade Associations dealing with particular industries, such as the Official Directory of the Association of British Chemical Manufacturers ; the Directory of the British Engineers' Association ; the Hardware Trades' Directory, and many others. Buyers will be well advised to write to the Secretaries of the Trade Associations in which they are interested, to obtain these specialised Directories, which give many thousands of sub-divisions of the articles made by their members, and which thus supplement, in the most useful way, the more general headings given in this book.

It is believed that the present is peculiarly appropriate for the publication of a work such as the EXPORT REGISTER of the Federation of British Industries. Before the war there were certain gaps in the manufactures and products of British works which, owing to the close interchange of trade between Great Britain and the rest of the world, were scarcely apparent to buyers. During the war, however, when each country was thrown so much on its own resources, a great deal was done by British manufacturers to fill up these gaps. In addition, the needs of the Government forced manufacturers to develop along hitherto unexplored lines, with the result that

British works have, within a few years, greatly enlarged their workshops and revolutionised their earlier practices. To realise the full extent of these changes is difficult, even for those who live in the United Kingdom. A close perusal of the following pages will, we believe, benefit British merchants and buyers not less than those businesses established overseas.

One lesson which has been thoroughly learnt is the necessity for communicating with foreign nations in their own language. With this end in view, the EXPORT REGISTER of the Federation of British Industries is published, not only in English, but in several foreign language editions, including French, Spanish, Portuguese, Dutch, etc.

One point to which special attention may be called is that the application of every Association or Firm for admission to membership in the Federation of British Industries is carefully scrutinised, not only with regard to its eligibility for membership under Rule 4 (see page 1), but also as to its capacity actually to manufacture and deliver the goods it describes itself as making. The mere fact of any firms being admitted to membership in the Federation of British Industries is in itself *prima facie* evidence of its standing.

The spirit of industrial solidarity and co-operation, so manifest during the past years will, it is hoped, be no less effective in assisting British industry in times of peace. A pleasing indication of this may be found in the pages of this book, the compilation of which would have been impossible without the hearty support of Members of the Federation. Indeed, it is to the Members themselves, rather than to the Management, that the value of the book must be ascribed, for it is the data furnished by them, often requiring much time and patience to complete, which gives this book its distinction and utility to buyers.

The Management have, further, to make grateful acknowledgment of the help received from the Board of Trade, from the Department of Overseas Trade, from the Colonial and Foreign Offices, and from every branch of the Government approached for assistance. Not least has been the practical help of the Officers at H.M. Legations and Consulates and the British Chambers of Commerce abroad.

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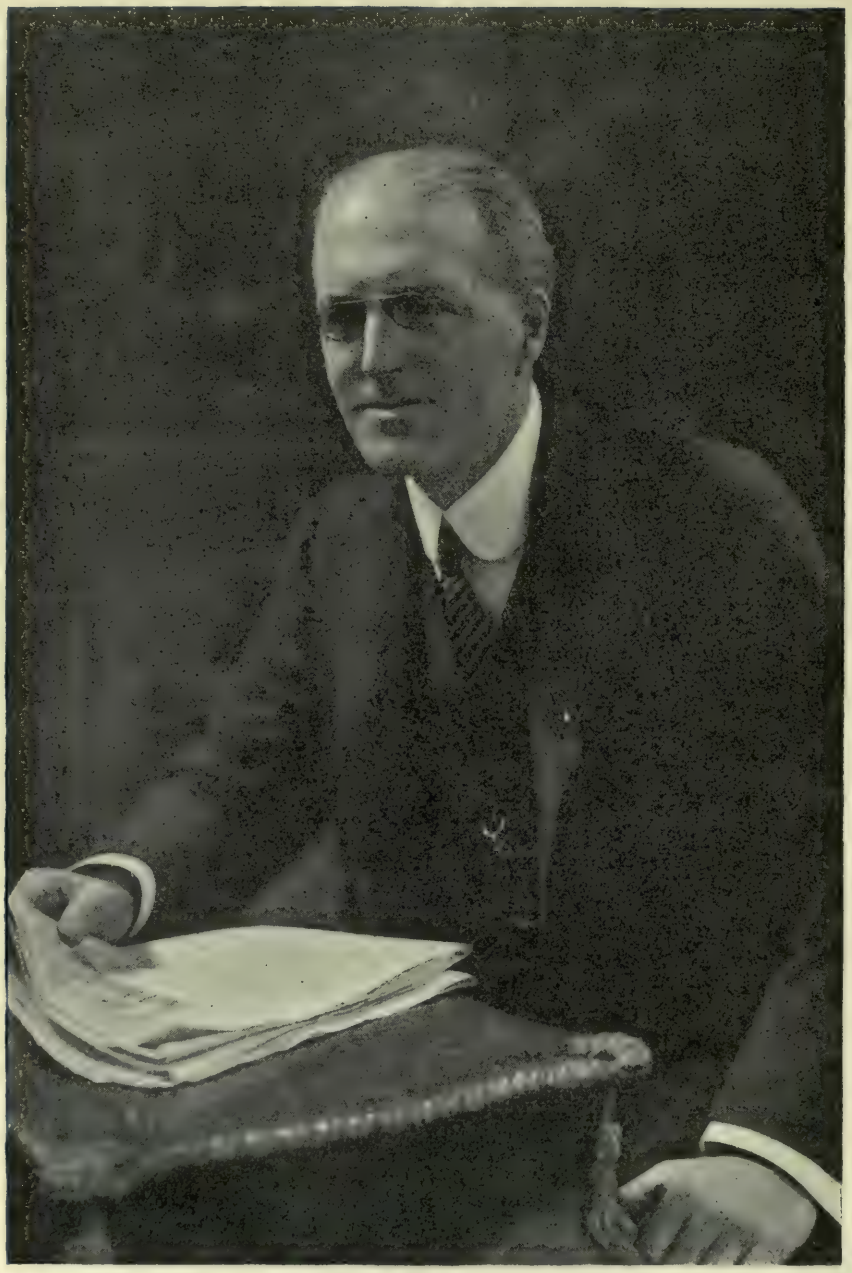

President Federation of British Industries, 1919-1920.

The FEDERATION *of* BRITISH INDUSTRIES

A Survey

THE Federation of British Industries is the latest and most important development of the Trade Organisation movement in the United Kingdom. For many years past the manufacturers in many of the leading industries of the country have experienced the advantages to be gained by co-operation and association for the protection of their common interests in organisations devoted to their particular trades. The exigencies of war-time conditions added impetus to this movement and led to a large increase in the number of trade associations, with the result that practically every industry and the majority of trades within each industry now have Associations to assist and to foster the manufacture of British goods.

For this scheme of organisation to be complete, it was seen that British manufacturers and producers required the co-ordinating assistance of a National Association, which would concentrate and weld together the efforts which each trade exerted through its trade association, so that manufacturers might be enabled to speak and act in a manner commensurate with their strength and importance. The national needs during the war, and, still more, the problems which would have to be faced when the war was over, necessitated the formation of a strong central organisation, representative of British manufacturers and producers as a whole.

These considerations led to the inauguration of the Federation of British Industries in the summer of 1916. The support of the leading manufacturers and producers in the country was at once given to the new body, and it rapidly succeeded in establishing itself as the only organisation which could claim to represent the views of the manufacturing section of the community as a whole. In the short period of four years, it has enrolled no fewer than thirteen hundred direct members, including some 200 trade associations, and is in direct or indirect touch with at least 20,000 British manufacturers, covering every industry in the country.

This large membership has been accelerated by the absorption in the Federation of other bodies having similar or cognate objects. Early in 1917, the Employers' Parliamentary Association merged its identity in that of the Federation. Twelve months later, the Central Council of Associations of Controlled Establishments—an organisation formed to watch the interests of firms which were under Government control during the war—handed over its functions to the Federation of British Industries, and on the conclusion of the war, the Overseas Organisation of the Federation absorbed the British Manufacturers' Corporation, which had been established to develop British trade in foreign countries.

The membership consists of two classes—Trade Associations and Individual Firms. All members must be wholly British and must be

manufacturers or producers of commodities for sale, or engaged in an industry serving the needs of manufacturers and producers.

The members are organised on both an industrial and a geographical basis. As is described later in this volume, they have divided themselves into 20 Main Industrial Groups, each Group consisting of all the members engaged in any one Main Industry. These Main Groups in turn are divided into Sub-Groups corresponding to the principal trade divisions in each industry, and where necessary, each Sub-Group is again divided into Sections, representing particular sub-divisions of each trade. Members themselves choose to which Groups, Sub-Groups and Sections they will belong. As is shown below, each Main Group and Sub-Group elects its own representatives upon the Grand Council and Executive Committee of the Federation.

For convenience of internal organisation and for dealing with local matters, the members are also organised geographically in 18 Districts. Each District has a local office and Secretary, and a District Committee elected by members resident in the District.

The constitution of the Grand Council and Executive Committee is given elsewhere in this book, and it will not therefore be necessary to enter into details in this survey. It should, however, be pointed out that these governing bodies are elected upon a basis which has been designed to give the largest and most democratic representation of the members.

The detailed work of the Federation is carried out by standing Sub-Committees, appointed by the Executive Committee. Each Sub-Committee consists as a rule of one representative of each Main Group, with the addition of a few specially qualified members. Each Sub-Committee controls its own sphere of activities, such as Management, Overseas Trade, Transport, Parliamentary Work, Taxation, etc., subject to the general supervision and control of the Executive Committee. In addition to these standing Sub-Committees, special *ad hoc* Sub-Committees are appointed by the Grand Council and Executive Committee from time to time to examine into and report upon particular problems.

The work of the Federation Committees is naturally devoted in the main to questions of policy, but the assistance which it is in a position to render to its members is not restricted to this. In the four years of its existence, it has built up a large range of personal services for the benefit of individual firms, which has resulted in saving its members an incalculable amount of time, trouble, and money. It has amassed from a great number of sources a volume of information on industrial subjects which is unique in its extent and variety, and in many ways is able to act on a member's behalf in both London and other parts of the country, as well as abroad.

The details of the various services are to a great extent set out in the pages which follow. The Overseas Organisation alone has whole or part-time representatives in all parts of the world, who, in addition to reporting on movements and methods of trade, act as intelligence officers for the British manufacturer. Brief reference will suffice for help given in matters of Transport, Shipping, Fuel, Taxation, Rating, Education, Employment, Housing, Statistics, Status Reports, General Information, and all questions of difficulty arising with Government Departments. Enough has been said to show the

utility of the help which such an Organisation can offer to individual firms included in its membership.

The Federation is, however, more than a co-operative society for mutual help: it is a vast National Institution. It has gained for the manufacturers and producers of the United Kingdom a status and prestige which they never before possessed. The Government and the country at large need an organisation to which they can refer for information and advice, with the knowledge that they can obtain thereby the opinion of industry as a whole. Free advantage of this opportunity is taken, and there is now scarcely a subject of industrial interest that has to be dealt with by the Government, upon which the assistance of the Federation is not sought. During the war, when the Government was assisted by numerous advisory committees, the Federation was invariably strongly represented, and now that the war is over, the Federation is continually approached by one Government Department after another for information and guidance as to the effect which any proposed action is likely to have upon the industrial community. The Federation never seeks to impose itself upon the Government, realising, as it does, that they must represent the nation as a whole and not merely any individual section, however strong; its aim is to help the Government, and by its action both in Parliament and outside, to safeguard the interests of manufacturers, which to so large an extent represent also the best interests of the nation itself.

The Federation is still only in its infancy. In four years by its activities during the war and throughout the period of reconstruction, it has won for itself an unrivalled position as the mouthpiece of British manufacturers. It looks forward in confidence to a continued period of usefulness in assisting the re-establishment of normal conditions of trade throughout the world, and the maintenance of the long renowned industrial position of the British people.

Telephone No. : Regent 6050. Telegraphic Address : "Fobustry, St. James, London."

The Federation of British Industries

PRESIDENT, PAST PRESIDENTS AND OFFICERS.

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W. PETER RYLANDS, Esq. (Messrs. Rylands Bros., Ltd.)

Past Presidents:

1916–1917

F. DUDLEY DOCKER, Esq., C.B. (The Metropolitan Carriage, Waggon & Finance Co., Ltd.).

1917–1918

Sir RICHARD V. VASSAR-SMITH, Bart. (The Gloucester Railway Carriage and Wagon Co. Ltd.).

1918–1919

Sir VINCENT CAILLARD (Messrs. Vickers, Ltd.).

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Sir RICHARD V. VASSAR-SMITH, Bart.

INDUSTRIAL GROUPING SYSTEM
ADOPTED BY THE
FEDERATION of BRITISH INDUSTRIES

THE Industrial Grouping System of the Federation was originally undertaken as a constitutional measure. In its early days the Federation was governed by a self-constituted Council, but with its growth in size and importance, it was felt that this should be replaced by a more democratic system. A Committee, representing all the leading industries in the country, was accordingly entrusted with the task of drawing up a constitution, and as a result of their deliberations, it was decided that the Members of the Federation should divide themselves into a series of groups, each group representing an important national industry, and that from these groups, the governing bodies of the Federation should be elected. The number of groups is elastic, and is enlarged from time to time, as new members join the Federation and as other circumstances appear to warrant. Each group, moreover, is entitled, subject to the confirmation of the Management Committee, to sub-divide itself into sub-groups, in order that the interests of the various trades covered by a main industrial group may be adequately considered. This industrial grouping, devised as a constitutional scheme, has proved an efficacious and democratic means of enabling the Federation to obtain the representative views of each trade or industry upon any of the national questions with which it has to deal, and the importance of such a system in counteracting any tendency to over-centralisation can hardly be exaggerated. Moreover, it supplies a speedy and efficient method of disseminating information to those Members who are most likely to benefit by it.

The Groups, with their Sub-Groups, are herewith set forth.

GROUP I.

Mining and Quarrying.

Sub-Groups.

1. QUARRYING—
   - (*a*) Limestone Quarrying.
   - (*b*) Granite Quarrying.
   - (*c*) Chalk.
   - (*d*) Slate.
   - (*e*) Stone.
   - (*f*) Sand.
   - (*g*) Natural Rock Asphalt.
2. COAL MINING.
3. GYPSUM MINING AND QUARRYING.
4. IRONSTONE MINING.
5. FIRECLAY MINING, INCLUDING CHINA CLAY.
6. SALT.
7. TIN.

GROUP II.

Mechanical Engineering.

Sub-Groups.

1. LOCOMOTIVE BUILDERS, CARRIAGE, WAGON AND RAILWAY APPLIANCE, MANUFACTURERS, AND BOILER MAKERS.
2. MACHINE TOOL MAKERS.
3. MOTOR VEHICLE MANUFACTURERS.
4. AIRCRAFT CONSTRUCTORS.
5. GENERAL MECHANICAL ENGINEERS—
   - (*a*) Sluices.
   - (*b*) Weighing and Testing Machinery.
   - (*c*) Cranes and Lifts.
   - (*d*) Steel Barrels, Kegs and Drums.
   - (*e*) Power Transmission.
   - (*f*) Fan, Humidifying and Dust Removing Apparatus Manufacturers.

GROUP II.—Mechanical Engineering—*continued.*

(*g*) Dairy Appliances.
(*h*) Laundry Machinery.
(*i*) Refrigerating and Cooling Machinery.
(*j*) Elevator and Conveyor Manufacturers.

6. Agricultural Engineers.
7. Heavy Engine Makers.
8. Textile Machinery Makers.
9. Mining Machinery Manufacturers.
10. Internal Combustion Engine Manufacturers.
11. Steam and Water Fittings and Pump Manufacturers.
12. Coke Ovens, Gas Conveying and Chemical Plant Manufacturers.
13. Heating and Cooking Apparatus Manufacturers.
14. Tin Stampers, Piercers and Allied Trades.
15. Ordnance Engineers and Projectile Manufacturers.
16. Printing Machinery.
17. Stone Breaker, Ore Crushing and Disintegrator Manufacturers.
18. Milling Machinery—
    (*a*) Sugar.
    (*b*) Rice.
    (*c*) Rubber.
    (*d*) Oil.
19. Scientific Instruments (other than Electrical).
20. Pedal Cycles.
21. Motor, Motor Cycle and Cycle Accessories Manufacturers.
22. Fire Arms and Ammunition.
23. Hydraulic Engineers.

GROUP III.

Shipbuilding, Marine Engineering, Constructional Steel Work and Allied Trades.

SUB-GROUPS.

1. Shipbuilding.
2. Bridge and Constructional Iron Work.
3. Marine Engineering.

GROUP IV.

Electrical Engineering.

SUB-GROUPS.

1. Electrical and Allied Machinery Manufacturers.
    (*a*) Accessories.
    (*b*) Arc Lamps.
    (*c*) Batteries, Portable Accumulators, Primary Batteries, Stationary Accumulators.
    (*d*) Compressors, Reciprocating.
    (*e*) Condensers.
    (*f*) Controllers.
    (*g*) Water Coolers.
    (*h*) Dynamos and Motors.
    (*i*) Dynamos and Motors (large).
    (*j*) Electro-Medical.
    (*k*) Engines : Diesel, High-speed Steam, Slow-speed Steam.
    (*l*) Heating and Cooking Apparatus.
    (*m*) Instruments : Industrial, Scientific and Telegraph.
    (*n*) Insulations.
    (*o*) Meters.
    (*p*) Pumps : Centrifugal.
    (*q*) Switchgear.
    (*r*) Transformers.
    (*s*) Turbines.
    (*t*) Turbo-Generators.
    (*u*) Rotary Converters.
2. Cable Makers.

GROUP V.

Iron, Steel and Allied Trades.

Section 1.—Production.

1. Pig Iron (Spiegel and Ferro-Manganese)—
    (*a*) Hematite, Ferro-Manganese and Spiegeleisen.
    (*b*) Basic Forge and Foundry.
2. Railway Materials, Rails, Fish Plates.
3. Ingots, Plates, Joists, Sections, Billets, Blooms Bars and Wire Rods—
    (*a*) Steel Makers.
    (*b*) Bar, Hoop and Wire Rod Rollers.
4. Sheets—
    (*a*) Galvanised Sheets and Black Sheets.
    (*b*) Tin, Terne and Blackplates.
5. Tilters, Forgers and Rollers.

Section 2.—Medium.

1. Railway Materials—
    (*a*) Wheels and Axles.
    (*b*) Tyres and Axles.
    (*c*) Laminated and Coiled Springs
    (*d*) Rolling Stock.
    (*e*) Fastenings.
2. Steel Casings, Iron and Steel Forgings and Stampings.
3. Iron Castings—
    (*a*) Heavy Castings.
    (*b*) Light Castings.
    (*c*) Malleable Castings.
    (*d*) Pipes.
4. Wire—
    (*a*) Wire.
    (*b*) Wire Netting.
    (*c*) Wire Ropes.
    (*d*) Wire Weavers.
5. Tool Steel Makers.
6. Refractory Materials.
7. Bright Bar and Cold Rolled Steel.

Section 3.—Finishing.

1. Saws, Files, Edge Tools, Machine Knives and Allied Trades and Engineers' Tools.
2. Tubes—
    (*a*) Welded.
    (*b*) Weldless.
3. Chains, Anchors, and Cables
4. Nuts, Bolts, Rivets, Bright Screws, Nails, and Miscellaneous.
5. Hollow-ware, Hardware, and Metal Smallware.
6. Drop Forgings and Stampings.
7. Cutlery.
8. Safes, Locks and Latches.

GROUP VI.

Textiles.

SUB-GROUPS.

1. Cotton—
    (*a*) Cotton Spinning.
    (*b*) Sewing Cotton Manufacture.
    (*c*) Cotton Manufacturing.
    (*d*) Cotton Bleaching.
    (*e*) Piece Dyeing and Finishing.
    (*f*) Yarn Dyeing.
    (*g*) Printing.

GROUP VI.—Textiles—*continued.*

2. Wool, Woollen and Worsted—
   (*a*) Wool Combing.
   (*b*) Wool Spinning.
   (*c*) Wool Manufacturing.
   (*d*) Wool Dyeing and Finishing.
3. Silk.
4. Lace.
5. Hosiery.
6. Jute, Flax and Hemp.
7. Mixed Fabrics (including Mechanical Cloth).
8. Textile Accessories.
9. Carpets, Linoleum and Floorcloth.
10. Clothing (Men and Women).
11. Artificial Silk.
12. Elastic Web.
13. Linen.

GROUP VII.
Glass and Clay Products.

SUB-GROUPS.

1. Glass.
   (*a*) Table and Decorative Glass.
   (*b*) Plate and Window Glass.
   (*c*) Optical Glass.
   (*d*) Chemical, Scientific and Heat-resisting Glass.
   (*e*) Electrical Lamp Bulbs.
   (*f*) Pressed Glass Ware.
   (*g*) Common Glass Bottles.
   (*h*) Flint Glass Bottles.
2. Clay Products (Pottery)—
   (*a*) Earthenware, China and Porcelain.
   (*b*) Coarse Pottery.
   (*c*) Stoneware Pottery.
3. Clay Products, Building Materials (including Cement and Refractory Fire Clay)—
   (*a*) Bricks and Tiles (Non-Refractory).
   (*b*) Glazed Fireclay and Earthenware.
   (*c*) Sanitary Pipes.

GROUP VIII.
Printing, Printing Ink Manufacturers, Type Founders, Process Workers and Allied Trades.

SUB-GROUPS.

1. Letterpress and Lithographic Printers.
2. Electrotype, Stereotype Manufacturers and Process Work.
3. Type Founders.
4. Publishers' Binders.
5. Printing Ink Manufacturers.

GROUP IX.
Chemicals, Fertilisers and Explosives.

Section 1.

(*a*) Acids (including Acetic and Oxalic), Carbonic Acid, Hydrogen, Oxygen and Gases, Alum Chrome, Zinc, Copper and Iron Compounds.
(*b*) Alkalies, Cyanides, Chlorine and Compounds, Silicates, Chlorates, Borax, Hydrogen Peroxide, Magnesia Compounds (not Medicinal).
(*c*) Gelatine, Sizes, Glue, Varnishes, Paints, Polishes, Tanning Materials.
(*d*) Distillation of Coal, Shale, Oils and Wood. Alcohol, Acetone, Coal Tar Primary Products (including Ammonia and Ammonia Products), Charcoal, Fuels.
(*e*) Fine Chemicals ; Analytical, Pharmaceutical, Photographic, Rare Earths, Synthetic Essences and Perfumes, Alcohol Derivatives, Ethers.
(*f*) Phosphorus, Manganese, Potassium, Sodium, Barium, Calcium, Cadmium, etc., Lead, Arsenic, Antimony, Tungsten, Molybdenum, etc.
(*g*) Cellulose Products, Celluloid.

Section 2. Explosives and Dyes and their Intermediaries.

Section 3. Fertilisers (including Super Phosphates).

Section 4. Fuel Oils, Motor Spirit and Benzole, including Benzine.

GROUP X.
Foodstuffs and Liquors.

SUB-GROUPS.

1. Cereals—
   (*a*) Flour Milling.
   (*b*) Oat and Barley Milling.
   (*c*) Patent Cereal Foods.
   (*d*) Rice.
   (*e*) Starch.
2. Liquors—
   (*a*) Brewers.
   (*b*) Aerated Water Manufacturers and Bottlers.
   (*c*) Wines.
3. Confectionery—
   (*a*) Cocoa.
   (*b*) Chocolate Confectionery.
   (*c*) Sugar Confectionery.
   (*d*) Jam.
4. Vinegar Brewing.
5. Animal Foods.
6. Tobacco.
7. Distillers.
8. Biscuit Manufacturers.
9. Sugar, Producers and Refiners.
10. Tea and Coffee Producers and Blenders.
11. Preserved Foods and Dried Fruits.

GROUP XI
Agriculture.

Not yet Sub-Grouped.

GROUP XII.
Building Trades.

SUB-GROUPS.

1. Building Materials.
2. Building Construction.

GROUP XIII.
Rubber, Asbestos, Leather and Allied Trades.

SUB-GROUPS.

1. Rubber Manufacture—
   (a) General Rubber Trade.
   (b) Tyre Trade.
   (c) Proofing and Garment Making.
2. Leather Production—
   (a) Curriers and Light Leather Manufacture.
   (b) Tanning and Heavy Leather Manufacture.
3. Leather Goods Manufacture—
   (a) Saddlery and Harness Manufacture.
   (b) Boot and Shoe Manufacture.
   (c) Bags and Fancy Goods Manufacture.
4. Asbestos Manufacture—
   (a) Textiles, etc.
   (b) Asbestos-Cement (Building Materials).
5. Machine Belting.

GROUP XIV.
Public Utility.

SUB-GROUPS.

1. Electrical Undertakings.
2. Tramways.
3. Gas.
4. Railways.
5. Water Supply.
6. Wireless Telegraphy.
7. Omnibus Undertakings.
8. Canals.
9. Dock Undertakings.
10. General Transport.
11. Road Transport.
12. Road and Paving Works.

GROUP XV.
Miscellaneous.

SUB-GROUPS.

1. Gas Appliance Manufacture—
   (a) Gas Mantles.
   (b) Gas Fittings.
2. Oil, Paint and Varnish.
3. Turpentine and White Spirit (Turpentine Substitute).
4. Jewellery and Allied Trades.
5. Musical Instruments.
6. Bedstead (Brass, Iron, Wood, etc.) Makers.
7. Miscellaneous.

GROUP XVI.
Non-Ferrous Metals.

(It was decided that it was not necessary to sub-divide this Group).

GROUP XVII.
Oils and Fats.

SUB-GROUPS.

1. Soap and Glycerine.
2. Candles.
3. Margarine and Lard Compounds.
4. Oil Seed Crushing, Refining, and By-Products

GROUP XVIII.
Paper Making, Manufacturing Stationery, Envelope Making, Paper Bag Making, Box Making and Allied Trades.

SUB-GROUPS.

1. Paper Making.
2. Manufacturing Stationers.
3. Paper Box and Carton Manufacturers.
4. Paper Bag Makers.
5. Stationery Sundries Manufacturers.
6. Coated Paper Makers

GROUP XIX.
Banking and Insurance.

GROUP XX.
Woodworking.

SUB-GROUPS.

1. Brush Making.
2. General Office Appliance Manufacturers.
3. General Timber and Woodwork Trades—
   (a) Sawmilling.
   (b) Packing Case.
   (c) Furniture.
4. Basket Making and Wicker Working Trades.
5. Vehicle Building.

Home Industries Department

of the

FEDERATION OF BRITISH INDUSTRIES

THE Home Industries Departments of the Federation deal with all questions affecting production and distribution in the Home Market.

In regard to Production, their activities are limited by the fact that the Federation takes no part in labour questions. It has, however, been found essential to keep in touch with developments on the labour side, as these re-act so strongly both on commercial and political questions.

There is a Parliamentary Department which deals with legislation affecting industry, and, as this may most conveniently be described in connection with the Home Industries Department, a detailed reference to it will be found under this heading (see page 21).

For the rest, these Departments deal with such questions as housing; trade organisation; the collection of accurate information in regard to labour questions; education; fuel and power; various aspects of the transport problem, in connection with which there are special expert departments dealing with railway and shipping questions.

There is also a Commercial Department, which deals with questions relating to the imports of raw materials and all general questions connected with selling in the Home market.

In all these branches of activity, work falls under two headings. The first includes questions of general policy, such as those which have arisen recently in relation to the Anti-Dumping Bill, the revision of the railway rates, the Bills regarding the supply of electricity and gas, the application of the scheme for continued education under the Fisher Act, etc.

The other side is that which deals with practical co-operation. The most interesting developments in this respect are those connected with the economy of fuel, and with the provision of expert advice in regard to co-operative housing schemes, assessment for local rates, and railway and shipping difficulties. The establishment of an Employment Bureau for higher staff appointments may also be mentioned.

The possibilities of co-operation of this kind have not yet been fully explored. Indeed, the movement may be said to be only in its initial stages. The possibilities are almost infinite, and, with the assistance of members, should be capable of rapid development.

Finally, mention should be made of the Intelligence Department, which acts as the feeder to all the different sections, keeping ceaseless watch for information on the huge variety of subjects with which the different departments deal; the organisation of this department is on novel lines, and it has already attained a remarkable degree of efficiency and a wonderfully wide scope.

Education and Production

IT may be advisable to consider first the work of the Production Department, concerned with factors affecting production which may be regarded as distinct from labour and commercial factors.

When the Miners' Commission was being held in 1919, evidence was prepared showing the cumulative effect of increasing coal prices in the various branches of industry. This evidence was presented to the Commission, and similar figures were used by the President of the Board of Trade and other Cabinet Ministers when speaking on the question. It can be truthfully asserted that it was only by the existence of the Federation, representing all branches of Industry, that such evidence was possible in the short time available for its collation.

Education.

When the Fisher Bill of 1918, which created many new educational developments, was introduced, the Federation policy was one of suggesting to the authorities the advisability of not proceeding with undue haste, especially as there was no likelihood of knowing the social and economic position of England after the war. The Federation felt that the time was inopportune for the immediate and general introduction of compulsory continued education, and strongly advocated in place thereof the introduction of a large increase in improved facilities for elementary and voluntary continued education. Through the activities of the Federation, in conjunction with other representative bodies, a compromise was effected, and the whole policy, whilst not altered in detail, was to become operative only in sections, thus avoiding at any rate a little of the confusion which would have arisen if the whole scheme had been introduced at once.

Since that time the Education Committee of the Federation has carefully considered the application of the scheme to industry, and its first Report on Compulsory Continued Education has met with a magnificent reception from all bodies and men who have the development of English education at heart. It may be regarded as the standard treatise on the subject. The Committee are now considering the question of Technical Education, and a most comprehensive and thorough survey is being made, not only in each industry in the United Kingdom, but also a comparative study in the chief foreign countries, such as the U.S.A., France, Germany, etc.

This work has meant the compilation of an immense amount of detail. This has been carefully abstracted and placed in such a form that a manufacturer who wishes for enlightenment on any question connected with education is able to obtain accurate and up-to-date information at once.

Research.

Conferences of representatives of the various industries setting up Associations have been held, and, as a result, it has been possible to clear away many difficulties which seemed to be obstructing the speedy formation of these Research Associations.

Employment Bureau.

Another activity of national importance is the setting up of a Clearing House for students recommended by the University Appointments Boards. Up to the present, through this Employment Bureau, it has been possible to introduce employees to manufacturers for staff and managerial positions. The value of this activity is becoming more and more realised by manufacturers.

Another interesting step has been the introduction of Overseas Students into British Works. This policy was first introduced while the Dominion troops were in England awaiting demobilisation, and has been continued as a result of the interest aroused in British Production by the Commercial Tours organized by the Overseas Department of the Federation.

Coal.

The coal situation has created many difficulties for manufacturers, and the importance of the question necessitated the

setting up of committees to deal with the various aspects.

The Coal Committee is essentially a policy Committee, and its work will lie in bringing the industrial requirements to the notice of the authorities, and for this purpose it is empowered to collaborate with such bodies as the Mining Association, when necessary.

A special technical committee, the Fuel Economy Committee, has also been constituted for the purpose of disseminating information on the best methods of fuel utilisation. The Committee has drafted a scheme for the practical assistance of manufacturers, involving the appointment of a technical assistant with expert knowledge of fuel questions.

The Coal Committee, faced with the unfortunate position arising out of the war period, coupled with control, has decided that the question of quality is the most pressing, and before it could prosecute a policy of allocation of coal according to quality required for the particular purpose, it decided that definite data should be obtained. In conjunction with the Fuel Economy Committee a questionnaire was distributed to manufacturers. The results should show the various amounts of specific quality actually required for definite purposes, and this data will be used for the purpose of advancing a policy of quality allocation of coal and coke.

Electricity.

When Parliamentary Measures of importance to manufacturers dealing with electric power, etc., are introduced, technical committees are formed to consider the same, and steps taken to ensure that the Committees' recommendations are adequately considered in Parliament, with the result that manufacturing interests are safeguarded. As an example, reference may be made to the Electricity Supply Bill, 1919, during the passage of which amendments of great importance which had been drafted by the Federation Committee were accepted by the Government. Similar action will be taken in regard to gas and hydro-electric power.

Industrial Art.

Another interesting activity has been the bringing of textile and other interested manufacturers into touch with artists of distinction who are specializing in industrial design.

Patent Rights.

Valuable propositions in regard to Patent Rights and other matters have also been brought to the notice of firms likely to be interested.

Scientific Management.

This Department makes it its duty to keep abreast with all developments regarding the principles of scientific management and also connected subjects, such as costings, the policy in such cases being to endeavour to create co-operative interchange between manufacturers.

Labour

ALTHOUGH the Federation has refrained from dealing directly with questions of wages and conditions of employment, it has played a prominent part in seeking for the solution to the great labour problems of the day.

The questions of Nationalisation and the Future Control of Industry have been made the subject of an elaborate and comprehensive enquiry by a Committee of experts on which all the important manufacturing industries of the country were represented. This Committee was appointed to invite evidence and the views of the different trades on the question of Nationalisation, and to draw up reasoned recommendations with regard to the future control of industry. Its conclusions were embodied in a report which was issued

by the Executive of the Federation in July, 1919, under the title, " The Control of Industry."

This document represents the most important pronouncement which has yet been made by the manufacturers of Great Britain on the present demands and theories of Labour.

Joint Industrial Councils.

The Federation has continuously supported the formation of Joint Industrial Councils along the lines of the recommendations of the first report of the Whitley Committee, and was specially invited by the Minister of Reconstruction to assist in the formation of Interim Industrial Reconstruction Committees.

The Labour Department maintains a close liason with the various Government Departments, and has frequently been consulted by them in dealing with important problems arising out of the transition from war to peace conditions—such as Emigration, Demobilisation, and Employment of disabled sailors and soldiers.

The Department acts as a general information bureau on all labour subjects and is kept fully supplied with the most up-to-date information regarding the general labour situation, and a special study is made of all important Labour developments, not only in the different industries in Great Britain, but also in all the important countries of the world. By this means, the Department is able to supply members, on application, with almost any kind of information which they may require on Labour questions.

In order to enable the Federation to promote a progressive policy on all these matters of general interest which affect labour without directly involving questions of wages and conditions of employment, arrangements have been made with the recently formed National Confederation of Employers' Organisations dealing with Labour matters, and a Joint Liason Committee has been appointed which meets every month to consider current problems.

Finally, the Federation has taken practical steps towards bringing about a real co-operation of Capital and Labour by assisting in the formation of the National Alliance of Employers and Employed. This body consists of representatives of employers' organisations and trade unions, and practically all the employers on the Executive Committee are Members of the Federation.

Housing

OF all the problems which had to be confronted at the end of the war, one of the greatest and most urgent was that of Housing. Even before the outbreak of hostilities, the housing of the workers in this country was very far short of a decent standard. The war intensified these bad conditions, making it impossible to build new houses to meet the normal increase of population or to keep up the existing supply by adequate repairs.

Early in 1918, the Federation appointed a special committee to consider how far manufacturers could assist in remedying these evils.

The problem was plainly one which required bold handling, and though it was clear that the major share of the building would have to be carried out by the State through Local Authorities, the problem was so vast that municipal building unaided would be unable to cope with it.

It was evident, too, that private enterprise would not be able to contribute substantially to the solution of the problem, without assistance from the State on a scale which Parliament would be very unlikely to sanction. Fortunately, there was an alternative. Before the war there had been evolved a class of co-operative building company technically known as a " Public Utility Society."

Housing in Industrial Districts.

These Societies are peculiarly well suited for the provision of housing accommodation in industrial districts, for they enable both

employers and workpeople to take a hand in the solution of the problem. The employers can contribute money by means of loan stock and the men are interested as tenant shareholders and are able, through Tenants' Committees, to have a large share in the management of the Society.

Moreover, the principle of assisting these societies out of public funds had been sanctioned by Act of Parliament before the war.

The Committee were strongly impressed by the importance of securing the support of Labour to their proposals, and accordingly approached the National Alliance of Employers and Employed. As a result, a Joint Committee with the Labour side of the Executive of that body was formed in September, 1918.

This Joint Committee made arrangements for a deputation to wait on the then President of the Local Government Board with the object of obtaining an assurance from the Government that in the forthcoming Housing Bill, Public Utility Societies would be granted terms at least as favourable as those accorded to local authorities. The result of this deputation was that the Government agreed that equal terms should be given. But when the Housing Bill of 1919 was introduced by Dr. Addison, it was found that this pledge had not been kept.

The Joint Committee continued, however, to press their views on the Government, and, finally, in the Housing (Additional Powers) Act, 1919, succeeded in securing sufficiently favourable terms to enable Public Utility Societies to commence work.

The Federation is accordingly urging manufacturers and others who are contemplating the erection of working class houses to take advantage of the assistance provided under this Act.

Literature explaining how Public Utility Societies may be formed, and how they may carry out their work, has been prepared and circulated, and an expert advisor has been retained to assist and advise members.

Trade Organisation

THE considered policy of the Federation of British Industries since its inception has been to foster and encourage the Trade Association movement in this country, and to offer assistance to manufacturers in the formation of trade associations in respect of such industries as are unorganised at the present time.

With this object in view, a special Committee of the Federation has been appointed, which is ready at any time to consider any enquiries or requests for assistance or advice as regards the formation of trade associations. It is prepared to arrange for personal discussions with the representatives of any trade which may contemplate taking steps to organise a trade association, or improve its existing system of organisation.

Committees have also been apppointed for dealing with such questions as the Legal Status of Associations; the State Regulation of Prices; and the General Organisation of Industry.

In addition, the Trade Organisation Department makes a special study of the various types of association existing in the different industries throughout the world, and deals with a wide range of industrial questions, involving different aspects of the problem of Trade Organisation.

Parliamentary

THE Parliamentary activities of the Federation are confined to watching legislation which affects Industry, and taking such action as may be necessary. The Federation does not, and cannot, under its rules, interest itself in Politics.

The Parliamentary Department works under a representative Committee, which meets as required at the Head Office when Parliament is in

session, and scrutinises all Bills which can possibly be of interest to manufacturers. In addition, this Committee is guided by reports and recommendations from other expert committees of the Federation who specialise in dealing with such subjects as Transport, Electricity, Patents, Trade Marks, etc.

Taxation.

The Parliamentary Department has made a special point of giving the subject of taxation most careful and exhaustive consideration, and the influence exerted by the Federation in 1919 in this direction has been productive of results in accord with the unanimous views of its members.

Representations have been made to the Chancellor of the Exchequer in opposition to a levy on capital in any form, pointing out that the only sound principle for raising Revenue for whatever purpose it may be required is to seek its provision out of income. In conformity with this principle, a basis for meeting the needs of the Exchequer was submitted which would prove least harmful to the development and extension of industry.

In regard to recent legislation, at the instigation of the Federation several amendments were introduced in the Ministry of Transport Act, the Trade Marks Act, the Patents and Designs Act, and the Electricity Supply Act.

Assistance to Individual Members.

In addition to the work carried out in connection with legislation, the Department has rendered valuable service to individual Members in difficulties which have arisen between them and Government Departments.

The assistance thus given has ranged over a wide field, and only a few instances need be given. Several Members have found that payment of Excess Profits Duty has presented considerable hardships, mainly because of heavy expenditures necessitated by the war for the extensions to buildings, plant and machinery. In a large number of these cases, the Federation has been able to arrange for the Duty to be paid by instalments.

In regard to Income Tax, points of practice and ratings affecting industry and matters relating to depreciation, obsolescence, special writings-off, allowable deductions, post-war valuations, have all been satisfactorily dealt with and greatly appreciated by individual Members.

Similarly in regard to Government Contracts, claims for advance in contract prices to meet increases in wages and cost of material, questions of investigation of costs, percentage of profit, allowance for establishment charges, prompter payment of outstanding accounts, interest on overdue accounts, have all been dealt with successfully.

Transport

THE Transport Department deals with all questions affecting the transit of goods between the Manufacturer and the Buyer, except in so far as shipping to foreign countries or the Colonies is concerned.

The Department is closely in touch both with the operative and with the commercial sides of the Railway Companies, and is thus enabled to take prompt action in all cases of difficulty reported by Members. It is also in touch with the Ministry of Transport, and by this means ensures effective action being taken in the case of Members' grievances.

General questions in connection with transport by rail, road, canal or coastwise shipping are dealt with by the Transport Committees of the Federation, upon which the benefit of the advice of transport experts throughout the country is secured. Complex questions of transportation law affecting the interests of the trading community generally are referred to the Federation's legal advisers, and close co-operation is maintained with the Traders' Traffic Conference and Mansion House Association.

A draft Bill was introduced in the House of Commons, and although it did not become law, it brought prominently before the public, the Government, and the House of Commons, the fundamental principles which must be observed if the railways are to meet the needs of the commercial community. It is safe to say that much of this Bill must inevitably be included in whatever measure the Government ultimately introduces to regulate the operation of the railways. The Transport Committees also dealt exhaustively with the Transport Act when it was before Parliament, and, as a result of their labours, many useful amendments were secured. Consequent upon all these activities reports have been issued on Road and Canal Transport.

The F.B.I. was one of the four bodies consulted by the Minister of Transport in connection with the proposed revision of the railway rates and conditions, and a full reply to the inquiry was prepared and forwarded in communication with the Association of Chambers of Commerce, the Mining Association of Great Britain and Ireland, and the Central Chamber of Agriculture.

Subsequently the Federation was called upon to open the inquiry on behalf of the traders before the Rates Advisory Committee.

The policy of the Department is directed towards securing the smooth working of the transportation system of the country. A fruitful source of delay and dissatisfaction in the past was a lack of co-operation between the local officials concerned, and as a result, complaints have been directed on the part of traders to the Railway Company Headquarters instead of being dealt with locally. With the assistance of the District Secretaries of the Federation, steps are now being taken to ensure that complaints involving questions of working rather than of general principle, are thrashed out with the district railway and other transportation officials, before being brought to Headquarters, and this policy is already producing good results.

Shipping Bureau.

A Shipping Bureau has now been added to the activities of the Federation. The Head of the Bureau (who has had practical experience in Shipping business) is prepared to advise Members and render them all assistance possible on any questions arising on shipping matters. Members who may be experiencing difficulties in connection with their shipments to any part of the world are invited to communicate with the Bureau.

Freight rates, outwards and homewards, and reliable information with regard to routes, sailings, documents and papers, etc., are furnished on application.

The Bureau is in close touch with all the Shipping Companies and through the Bureau the Federation is in a position to take up with the Companies any questions of general importance affecting its Members.

Intelligence

THE work of the Intelligence Department consists essentially in collecting, co-ordinating and disseminating information on all matters which are or may be of interest to Industry in general, and to the Federation and its Members in particular. The Department is in touch with about 500 institutions and people in London alone, all of whom are experts in the various subjects which they represent. These Correspondents include most Learned

Societies, Chambers of Commerce, Foreign Consuls and Libraries, as well as many private individuals, who are established as authorities on particular matters. In addition, the Department is in close touch with many Chambers of Commerce and even foreign Legations abroad.

Thus the work of this Department is, first to render personal service to Members by obtaining for them information on any subject; and, secondly, to do the same work for other Departments within the Federation. It is divided into the following sections:—

(1) The ENQUIRY DEPARTMENT, which deals with enquiries which can be answered shortly. This Department acts in close touch with a large number of Associations, Learned Societies and individual experts on all matters of general interest to Industry.

(2) The RESEARCH DEPARTMENT deals with matters involving greater research. It produces memoranda and reports on economic questions, sources of supply of various Raw Materials, etc.

(3) The GENERAL INDEX, wherein is recorded all information coming into the Federation on a variety of subjects in such a manner that it can easily be traced at short notice.

(4) The REFERENCE LIBRARY, which also has its own Press Cutting system. It circulates and annotates some 240 papers and periodicals to the different departments of the Federation, and on their return, passes them to the General Index for filing and indexing.

(5) The EXCHANGE. The Head of the Department is Secretary of the Federation Committee on the question of Exchange, and the Department obtains the latest information on Exchange and the cost of Raw Materials available.

(6) CO-ORDINATION OF STATISTICS.—The Head of this Department is Secretary to the Federation Committee on the Co-ordination of Statistics. This Committee has been successful in obtaining numerous improvements in the form of the headings used by the British Board of Trade for collection of statistics. One of the Committee's chief objects is to obtain all the facts available on any subject of interest either to individual Members or to the Federation as a whole, so as to enable the Members of the Federation to shape its policy in accordance with those facts.

The principle on which the Department works is to keep in the closest touch with experts in England or, if necessary, abroad, so that it can always get the latest and most expert information on any subject which may arise.

The members of the staff are, many of them, Fellows of the various Learned Societies which have been founded in London, as, for example, the Royal Geographical Society, the Royal Statistical Society, and the Royal Geological Society. Various members of the staff have made themselves expert on particular sections of the Bureau's work, and questions are thus handled by the men best suited, who in turn, are in constant touch with outside specialists.

In this way alone it is possible for the Federation Intelligence Department to serve adequately all the multitudinous interests of Members and also to answer the various problems which they submit for solution.

In some cases, the Department has been successful even in obtaining supplies of raw materials for Members who were unable to do so through the ordinary means of trade. It will be seen that the Intelligence Department plays an unobtrusive but important part in the work of the whole Federation.

Overseas Organisation

of the

FEDERATION OF BRITISH INDUSTRIES

THE purpose of the F.B.I. Overseas Organisation is to provide a service run by manufacturers for manufacturers, capable of giving assistance and information of every kind promptly and efficiently to every manufacturer who desires to export his goods or to import his raw material.

It has been organised and is directed solely in the interest of manufacturers, and is thus able to give a specialised service which is far more prompt, detailed and efficient than can be rendered by any Government commercial organisation which is compelled to serve many competing interests and is hampered by the necessity of avoiding any action which may cause local embarrassment.

Under the supervision and control of the Committee elected by the Members, the organisation of the Overseas Service at home consists of a Department suitably sectionalised to enable an expert to deal with each group of markets. This Department sees to the prompt distribution to Members of the information received from all sources, gives any assistance which it may be possible to give in England, from procuring passports to procuring tonnage, and co-ordinates and directs general policy.

The organisation abroad consists of Commissioners chosen exclusively for their commercial experience and intimate knowledge of the countries to which they are appointed, provided with a suitable staff of assistants and convenient offices, and linked up by correspondents with the chief towns of commercial importance in their area. Sufficient salaries are given to obtain the best men available, and sufficient funds provided to supply them with every necessary facility in carrying out their work as efficiently as possible.

The Headquarters Organisation

A COMMITTEE of Members of the Federation representing all sections of interest in export trade has been established to consider and decide all general questions of policy with regard to overseas trade. This Committee is called the Overseas Committee.

A Sub-Committee of the Main Committee has been formed, called the Commissioner Service Committee, with the following terms of reference :—

(1) The consideration of candidates for Commissionerships, with powers of appointment when duly authorised.

(2) To draw up all necessary regulations governing the Commissioner Service.

(3) Generally to control and supervise the operations and conduct of the Service.

(4) To report from time to time to the Main Overseas Committee upon all action taken and to make any recommendations in regard to overseas trade policy.

Overseas Department

A DEPARTMENT of the Federation has been established to take executive action in connection with all matters relating to overseas trade. This Department, called the Overseas Department, is under the control of two Assistant Directors, who are responsible to the Main Overseas Committee and its various Sub-Committees.

The Overseas Department is divided into the following nine sections :—

General Section.	Near East Section.
American Section.	Far East Section.
Empire Section.	East Indies Section.
South European Section.	Exhibition Section.
North European Section.	

The General Section acts as a secretariat to the Directors and co-ordinates the works of the various geographical sections.

The geographical sections themselves are organised as intelligence centres for the various territories dealt with. They obtain information from the Commissioners and from other sources on all subjects which may interest Members, such as likely agents or customers, Customs intricacies, local habits, trade movements, competition, local resources, etc.

The Exhibition Section deals with the technical work in connection with the organisation of exhibitions abroad which the Federation of British Industries may desire to organise or participate in, such as the Athens Exhibition.

Method of Dealing with Trade Openings.

A special department of the Federation, acting in conjunction both with the Overseas Department and the Industrial Grouping Department, carries out the selection and despatch of trade enquiries and similar particulars to those manufacturers likely to be interested. The system has been carefully evolved to avoid any possible delay, and also to ensure that every Member of the Federation who manufactures the goods referred to in the enquiry shall receive a notice of it. To make absolutely certain of this, details of all enquiries received during each week are printed in a confidential supplement to the official Bulletin of the Federation, which is sent out to Members every Monday. Neither in the circular letters nor in the Bulletin supplement are the names of enquirers given, and all Members interested communicate immediately with the Head Office. A similar procedure is adopted in cases where overseas firms apply to act as agents for particular classes of British goods.

The Commissioner Service

THE basic principle of the Commissioner Service of the Federation of British Industries is the appointment of men on the spot in all the principal markets of the World to represent and safeguard the interests of British manufacturers, and to promote, in every way possible, the further consumption of British manufactured articles of all kinds.

Such a service is, of course, of particular interest to manufacturers who, for various reasons, may not be in a position to establish their own branches in a particular market. Although Federation Commissioners do not actually book orders for such firms, they nevertheless furnish them with all available intelligence with regard to the demand for their goods and kindred matters.

The following is a brief summary of the functions of the Commissioners :—

1. To act as a centre for collecting and classifying information, particularly with regard to :—
   (*a*) Movements and methods of trade.
   (*b*) Status of traders.
   (*c*) Trade requirements.
   (*d*) Foreign competition.
2. To recommend suitable Selling Agents when requested by Members.
3. To protect the interests of Members and act generally for them in emergencies.
4. To have a panel of legal advisers.
5. To have a panel of interpreters.
6. To form a library, containing translations of important documents, such as Customs regulations, etc.
7. To engage rooms for the deposit and display of samples.
8. To act in co-operation with representatives of H.M. Government in the interests of Members.
9. To appoint a local board of prominent business men, in sympathy with British aims, to advise the Commissioner generally.
10. To display and distribute Members' catalogues.
11. To constitute their Offices a meeting place and Information Bureau for Members and their Agents.
12. To keep a special watch on trade statistics of all kinds, and refer particulars of them to the Head Office with their observations.

The chief difficulty experienced in establishing the Service, has been to find the right men to undertake the work of Commissioners. It has been necessary, therefore, to select, first of all, the markets for which suitable men were available.

In order to make the scope of the Organisation as wide as possible without delay, a large number of minor appointments have been made to centres where the appointment of full Commissioners has not yet been possible, and in addition to these, a number of British subjects, in various parts of the world, have been appointed as honorary or paid correspondents to represent the interests of British manufacturers, and at the same time to furnish information likely to help them in their export trade.

The Near East.

THE NEAR EAST.

The first appointment was that of Maj. Kennard to Athens, who returned to Greece with the Greek Mission which had visited British factories in the autumn of 1918, as guests of the Federation. One important result of this appointment, was the successful Exhibition of British goods held in Athens during the months of October and November, 1919.

Subsequent appointments, under Major Kennard, of Sub-Commissioners for Athens and Constantinople have recently been made, Captain Cumberbatch being in charge of the Athens Office, and Captain La Fontaine of the Office in Constantinople. Major Kennard will, in future, undertake the supervision of these two Offices and of further ones which it is hoped to establish in the Near Eastern markets.

Spain, Portugal and Northern Africa.

The next Office to be opened abroad was at Madrid, where the Federation took over the Bureau set up by the Ministry of Information during the war. In April of last year, Colonel Thoroton formally took charge of the Bureau, which has proved an unqualified success in the development of British trade in Spain, Portugal and Northern Africa.

SPAIN, PORTUGAL AND N. AFRICA.

Carrying out further the principles laid down for the development of the Commissioner Service, Offices have now been opened in Algiers and Lisbon, and these work under the supervision of the Madrid Bureau.

The East Coast of South America.

SOUTH AMERICA—EAST COAST.

The visit to this country of the influential Brazilian Mission, which came at the invitation of the Federation, afforded an unique opportunity for the appointment of a Commissioner to Rio, with supervision, for the time being, over the whole of the East Coast of South America. Mr. McKellen was selected for this post, and returned to Brazil with the delegates at the end of September.

East Indies.

EAST INDIES.

The next area to which the Committee appointed a Commissioner, was that covering the Netherlands East Indies, Straits Settlements,

Siam and French Indo China, and Mr. G. O. Blacker was despatched to Singapore at the end of September.

Even before his departure, Mr. Blacker's wide knowledge of East Indian markets enabled him to be of considerable service to Members. He will from time to time undertake tours of the islands in order to keep his information of trade conditions fully up-to-date, and to inform buyers of the productive capacity of the United Kingdom.

South Africa.

SOUTH AFRICA.

Owing to the peculiar conditions ruling in South Africa, a somewhat different course of action to that adopted in other markets was decided upon. In February, 1919, Mr. C. W. F. Harrison was despatched with instructions to tour the whole of the Dominion and the adjacent countries and to make a general report on the conditions prevailing there, and the best form of permanent representation for the Federation to adopt. Mr. Harrison's tour lasted for exactly a year, and resulted in very valuable connections being established.

Scandinavia.

SCANDINAVIA.

The most recent appointment to be made was that of Mr. Montagu Villiers, as F.B.I. Commissioner for Scandinavia, in November. Mr. Villiers has already made a preliminary tour of the three Scandinavian countries, which he knows intimately, and has set up an office in Copenhagen. He will eventually have Offices in the three capital cities.

Summary of the Commissioner Service.

The following list includes, in addition to the above appointments, a number of provisional arrangements which have been made for representation and the supply of information from other markets where it seemed desirable to arrange such facilities with the least possible delay.

List of Commissioners and Representatives abroad.

Place.	*Name and Address.*	*Status.*
NEAR EAST	Major E. Kennard, F.B.I., 6 (a) Odos Dragatsani, Athens.	Commissioner.
Greece ..	Capt. R. C. Cumberbatch, F.B.I., 6 (a) Odos Dragatsani, Athens.	Sub-Commissioner.
Turkey ..	Capt. F. C. La Fontaine	Sub-Commissioner.
EAST INDIES	Mr. G. O. Blacker, F.B.I., 2, Prince Street, Singapore.	Commissioner.
SPAIN, PORTUGAL AND ALGIERS	Col. C. Thoroton, C.M.G., 22, Montalban, Madrid.	Commissioner.
Algiers ..	Mr. D. Thoroton, F.B.I., 6, Rue de la Liberté, Algiers.	Sub-Commissioner.
BRAZIL ..	Mr. P. J. McKellen, F.B.I., Caixa Postal: 2145, Avenido Rio Branco 18, Rio de Janeiro.	Commissioner.
SCANDINAVIA	Mr. Montagu Villiers, F.B.I., Amagertov 29, Copenhagen.	Commissioner.
ITALY ..	Mr. E. H. Capp, Via Silvio Pellico 6, Milan, Italy.	Representative.
HOLLAND ..	H. M. Andrée Wiltens, F.B.I. and Commissie voor den Nederlandsch Engelsche Handel, Damrak 83, Amsterdam, Holland.	Committee.
AUSTRALIA ..	R. H. Butler, Collins House, 360, Collins St., Melbourne.	Correspondent.
CANADA (1)	Canadian Mfrs. Assn., Toronto.	Honorary Correspondents.
(2)	Canadian Assn. of British Mfrs. and their Representatives, 32, West Front Street, Toronto.	Honorary Correspondents.
NEW ZEALAND	New Zealand Assn. of British Mfrs. and their Agents, Wellington.	Honorary Correspondents.

Arrangements have also been made for honorary correspondents in the following countries, among others :—

Argentine.	Finland.
France.	U.S.A.
Cuba.	South China.
Mexico.	Japan.
Egypt.	

The above lists do not include the large number of individuals abroad, official and unofficial, who from patriotic motives have, on many occasions, furnished, and are furnishing, valuable information to the Head Office of the Federation.

In order that Commissioners abroad may keep in the closest touch with the work of the Federation at home, arrangements are constantly being made for them to return to this country for short visits, when they are given an opportunity of visiting the District Centres and interviewing Members interested in their markets.

In addition, officials of the Head Office are, from time to time, sent out to the Commissioners' Offices, where they are given every opportunity of getting a quick insight into the conditions ruling and the work which the Office is doing.

Overseas Associate Scheme.

In connection with the F.B.I. Commissioner Service, a scheme has recently been adopted experimentally in Spain, whereby foreign firms may become associated with the Federation on paying a definite annual subscription.

They will be styled " Overseas Associates," will have the use of the information collected by the Commissioner and certain other assistance, and will, at the same time, be expected to pass on to him such information as they obtain, especially with regard to orders for goods likely to interest British manufacturers.

Assistance to Overseas Buyers.

THE assistance which the Overseas Organisation of the Federation can render to firms and individuals in the various markets of the world, who wish to get into commercial relations with British manufacturers, falls under three heads.

1. Details of British Manufactures

The Offices of Commissioners may be regarded by the commercial communities abroad as places of reference where every facility will be offered them to form opinions both as to the general position of supplies from the United Kingdom, and the details of design, prices, etc., of any particular article in which they are interested.

These Offices are kept supplied, by the Head Office in London, with all the information which can be obtained from the Members of the Federation as to the goods which they have at present ready for export, and those which they will shortly be able to supply.

All Members prepared to deal in a particular market, send catalogues, and where possible, price lists, to the Commissioners' Offices, where arrangements are made for the display of these catalogues and for their distribution to likely customers. Similar arrangements are made for the display of small samples and show cases.

Any foreign buyer writing to, or calling on the Commissioner, will receive the fullest possible assistance, and, in cases where the details he requires are not immediately available, they will be applied for to the Head Office in London. No trouble is spared to enable the foreign buyer to compare the quality, prices and delivery of British goods with those of other countries, and no charge or obligation is incurred by him in making such enquiries.

In cases where Members of the Federation have their own representatives in a market, a call at the Commissioner's Office will enable a customer to be put in touch with such representatives, who are, in many cases, on terms of close co-operation with the Commissioner.

Fairs and Exhibitions.

Another means by which the Federation enables foreign commercial interests to investigate the advisability of purchasing British goods, is the share taken in all important International Fairs and Exhibitions.

In many cases, British manufacturers are not prepared to incur the expense involved in engaging a stall at such Exhibitions and in sending their representative to interview buyers. In order that they shall, nevertheless, be able to participate, the Federation engages stalls in its own name, where Members' literature and small samples are displayed, sends out qualified men to look after these stalls and passes on to Members of the Federation the names of visitors interested in their particular lines of goods.

Moreover, the Federation's representatives arrange for the attendance of experts, such as interpreters and typists, so that these stalls become meeting places for the representatives of those Members who have themselves taken stalls at the Exhibition.

A foreign buyer saves himself much time and trouble on his visits to such exhibitions by calling first at the Federation of British Industries' stall, where he will immediately be put in touch with those firms who have their own exhibits, and with any of the large number of manufacturers represented by the Federation, who are not themselves taking part in the Exhibition.

2. Orders and Agencies for British Goods

Many foreign firms know, by past experience, the channels through which they can obtain the goods they require, but a very large proportion of these channels has been disconnected by the war, and many British firms have considerably changed the nature of the articles they produce. It therefore happens that many firms, even with large experience of trade with Great Britain, are entirely at a loss to know where to obtain the particular lines which may be in great demand in their countries. In such an event, the Commissioner Service can be of inestimable value in the following way.

Enquiries for British Manufactures.

When a demand from a foreign house is received by a Commissioner for a British product, this demand is immediately forwarded to the Head Office in London.

In order to comply with the wishes of many buyers, the enquiries are, in the first instance, passed to all Members interested without mentioning the enquirer's name. Only those firms actually in a position to fulfil the order answer this notice. They are immediately given the name and address of the enquirer, and the latter is, at the same time, informed of their names.

By this system, a foreign firm is placed in direct touch with a large majority of the British manufacturers able to supply its needs, and is saved the trouble of a vast amount of correspondence with firms who cannot supply them. At the present time, when so many firms are booked up for months ahead, this means an enormous saving of time and trouble.

Moreover, the whole service is rendered without any charge or commission of any kind being asked, either from the buyer, or from the Member with whom he is put in touch, and the Member and the buyer are entirely free to make their own arrangements for the transaction of the business which results.

Requests for Agencies.

Exactly the same action is taken in the case of an Overseas House asking to become Agents for a particular line of British goods. If, however, such a house asks for an Agency of a particular manufacturer, its request is naturally forwarded, in the first place, only to the Member mentioned by it, and presuming it shows itself to be in a position adequately to represent that Member's interest, its request is supported by the Federation.

In this connection, it should be mentioned that the converse of this action is constantly being carried out by the Federation, *i.e.*, Members write daily to the Head Office for the names of suitable firms to act as their Agents for particular markets, and these requests are fulfilled by an investigation, on the part of the Commissioner, of the overseas firms with which he is in touch. It may, therefore, often be useful for overseas firms, not in immediate need of his assistance, to put themselves in touch with the Commissioner, and inform him, from time to time, of their general activities.

3. Safeguarding British Trade Policy and Methods.

A third phase of the Commissioners' assistance to overseas customers, although it would not be of such constant service, is perhaps, in some ways, the most important of all, and would of itself justify the appointment of representatives, such as the Federation's Commissioners, in the principal market centres of the world. It arises in cases where, in the opinion of the commercial community of a market, the policy adopted by a particular class of British manufacturers, or by British industry as a whole, is harmful to the best interests of trade between the United Kingdom and that market.

On such occasions, the Federation forms a channel by which a fair criticism of British policy or trade methods can be brought to the notice of the large majority of the industrialists of Great Britain. Such criticisms will receive the fullest consideration, and either the difficulties of the situation will be explained, or a change of policy will be encouraged.

Moreover, when a new plan is adopted, either by the manufacturers themselves or by the British Government, affecting trade with the market, commercial houses interested are invited to express their views to the Commissioner as to its effect on their trade with Great Britain.

Commissioners are in close touch with the representatives of His Majesty's Government in their markets, and the Head Office is constantly acting in co-operation with the Foreign Government Authorities in London, so that such views will have an admirable chance of being considered in the proper quarter.

Direct Communication with the Head Office

MOST of the assistance described above, which can be obtained from the F.B.I. Commissioners by overseas buyers of British goods, can also be obtained by buyers in markets where no Commissioner has as yet been appointed, by direct communication with the Overseas Department of the Head Office in London, at 39, St. James's Street, S.W. 1. In these cases, however, it will obviously save considerable delay if the firm, in its first communication, furnishes such information on its experience, standing, etc., as will enable the Federation to recommend it without hesitation to the notice of Members.

Overseas Buyers Visiting the United Kingdom

WHEN the overseas buyers or their representatives visit the United Kingdom, they are cordially invited to call, immediately on arrival, at the Offices of the Federation of British Industries, 39, St. James's Street, London, S.W. 1.

The visitor will be interviewed by the Head of the Geographical Section dealing with the country from which he comes, and that Section will furnish him with all information available with regard to the lines of goods in which he is interested, and will undertake enquiries on his behalf to obtain the fullest particulars, and thus save him a large amount of time and trouble.

According to the duration of his stay in England and the particular assistance which he requires, the Federation will help him in one of two ways: (1) either his requirements will be circulated to every Member likely to be able to supply them, and he will subsequently be put in touch with such Members; or (2) he will be given letters of introduction to the Heads of those firms with whom he particularly wishes to get into communication.

District Offices.

It very often happens that the whole industry, in which the foreign representative is interested, is centred in one of the industrial districts outside London. In such cases, the representative is furnished with a letter of introduction to the Federation District Office at the principal city of that area, and the District Secretary himself will furnish letters of introduction to the principal firms in that district, and will, where possible, accompany the foreign buyer on his visits.

During the last year, a constant stream of buyers from abroad has passed through the Federation Offices in this way, and, in very many cases, the Federation has helped them to get their work done in considerably less time than they would have taken in getting in touch with British manufacturers unaided.

Other Activities of the Overseas Organisation

Tours of Commercial Representatives.

THE Federation has, from time to time, invited to this country delegations of important representatives from certain overseas markets, and has conducted them as its guests on a series of visits to the principal centres of the country. They have been given the fullest opportunities for studying British manufacturing processes and conditions, with a view to stimulating interest in British manufactures.

GREEK TOUR.—The first of these tours was in the autumn of 1918, when eight important Greek Commercial Delegates visited this country as the guests of the Federation, headed by His Excellency, Monsieur A. Michalacopoulos, Greek Minister of Agriculture. Major Kennard, the present Federation Commissioner for the Near East, was despatched with the Delegates at the close of the tour, and immediately set up his Office in Athens.

BRAZIL TOUR.—In the summer of 1919, the Brazilian Government arranged for a Mission of Brazilian Commercial Delegates to visit this country at the invitation of the Federation. The tour was supported by both the British and the Brazilian Governments, and was headed by the present Minister for War in Brazil. A very comprehensive series of visits was undertaken to all the principal manufacturing centres. Mr. McKellen, the present Commissioner for Brazil, proceeded to that country with the returning delegates.

Tours of Dominion Representatives.

With the co-operation of the High Commissioners of the various Dominions, a series of tours of representatives of the Dominion Forces in this country, who were interested in the import of goods from Great Britain to the various Dominions, was arranged. Selected centres of industries were visited, and Members of the respective parties were brought into touch with Members of the Federation, with a view to the formation of business connections.

In addition, the Federation has taken a large part in arranging for visits to British factories of foreign delegates brought to this country as the guests of His Majesty's Government. This was done in the case of the Serbian Mission in 1917, and to a lesser extent, in the case of other missions from Chile, Spain, etc.

Exhibitions.

LYONS FAIR.—At each of the last three Lyons Fairs, the Federation has had its own stalls, in charge of qualified men, where the catalogues and samples of Members have been displayed and brought to the notice of foreign buyers. These stalls have also formed a rallying point for British interests at the fairs. Similar arrangements have been made in the case of other important International Fairs abroad, such as the Brussels and Milan Exhibitions.

ATHENS EXHIBITION.—The largest All-British Exhibition ever held abroad was organised and carried out by the Federation at Athens in the autumn of 1919. Some 500 British firms were represented at the Exhibition, which was visited during the five weeks of its run by nearly 100,000 people from all parts of the Near East. The results of the Exhibition are already being felt in the great development of trade between the United Kingdom and the Near Eastern markets.

Government Missions Abroad.

At the invitation of His Majesty's Government, the Federation has nominated its own representatives on the special Government Missions which have, during the past two years, been sent to such places as Poland, Serbia, Germany, etc. A member of the Federation staff also accompanied the Special Diplomatic and Commercial Mission undertaken on behalf of His Majesty's Government by Sir Maurice de Bunsen during the summer of 1918, to all the South American States.

Paris Delegation.

At the invitation of the French Government, the Federation sent, in March 1919, a Delegation of 30 representative British manufacturers to Paris, to interview the Ministers of the French Government and the representatives of French industry, and to put before them the views of British industry on the future commercial relations between the two countries. Very satisfactory results were achieved.

OFFICERS & COMMITTEES *of the* FEDERATION *of* BRITISH INDUSTRIES

GRAND COUNCIL

THE Grand Council is elected through the medium of the Industrial Grouping System (see page 13) on a basis of representation proportional to the number of workpeople employed by the members of the sub-groups. An annual return is made by each member of the Federation showing, in the case of an affiliated Trade Association, the number of employees of its component firms, and in the case of an individual firm the number of workpeople which it employs. To each group one representative on the Grand Council is allocated for every 20,000 employees (or part thereof) engaged by the members of the Associations included in the group, and for every 40,000 employees (or part thereof, minimum 2,000) employed by the individual members. Additional representation on the Council is granted to the District Committees of the Federation and to the District Associations of Controlled Establishments.

The Members of the Grand Council for the year 1919-20 are as follows :—

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W. PETER RYLANDS, Esq. (Rylands Bros., Ltd.)

Past Presidents:

1916-17. F. DUDLEY DOCKER, Esq., C.B. (The Metropolitan Carriage, Waggon and Finance Co., Ltd.)

1917-18. Sir RICHARD V. VASSAR-SMITH, Bart. (The Gloucester Railway Carriage and Wagon Co., Ltd.)

1918-19. Sir VINCENT CAILLARD (Vickers, Ltd.)

Vice-Presidents:

The Rt. Hon. Lord ABERCONWAY (Palmers Shipbuilding and Iron Co., Ltd.)
Sir ROWLAND H. BARRAN (J. Barran & Sons, Ltd.)
Sir A. HERBERT DIXON, Bart. (The Fine Cotton Spinners' and Doublers' Association, Ltd.)
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E. MANVILLE, Esq., M.P. (Association of British Motor Manufacturers, Ltd.)
Sir WILLIAM PEARCE, M.P. (Association of British Chemical Manufacturers).
Sir HERBERT B. ROWELL, K.B.E. (R. & W. Hawthorn, Leslie & Co., Ltd.)

Chairman of Council:

Sir WILLIAM B. PEAT (W. B. Peat & Co.)

Deputy-Chairman of Committees:

E. FITZJOHN OLDHAM, Esq. (United Glass Bottle Manufacturers.)

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(Arranged Alphabetically).

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THE Executive Committee is a Committee of the Grand Council (see page 33). It is elected directly by the members of the Council, group by group, upon a basis of one representative for every 100,000 employees engaged by the Association members and individual members collectively included in each group. The Main Standing Committees of the Executive are also appointed in such a way as to include adequate representation for each industrial group. The members of the Executive Committee for 1919-20 are as follows :—

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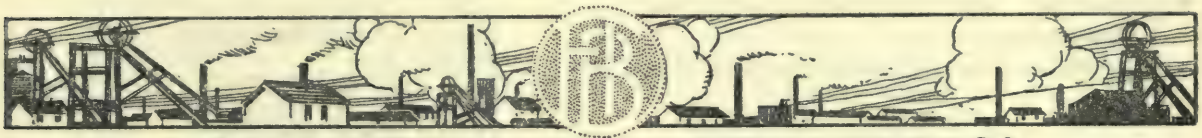
Associations

(Arranged in Industrial Groups).

IN the particulars given here of Associations which hold membership in the Federation of British Industries, there is given first the total membership of the Association, and, in many cases, the names of those Association Members who are especially interested in Export trade. If these firms are also full members of the Federation, their names and full addresses will be found in the "List of Firms and Companies" immediately facing this Section. Those who do not so figure can be approached by enquiries directed to the care of the Association Secretary, or alternatively, communications can be addressed to The Secretary, Federation of British Industries, 39, St. James's Street, London, S.W.1, who will forward the same to the proper quarter.



GROUP 1—MINING AND QUARRYING

Sub-Group 1.—QUARRYING.

MIDLAND Granite QUARRYMASTERS' ASSOCIATION.

Total Membership: 18.

Objects: To promote the interests of the Quarrying Industry. The interchange of information and mutual assistance by the Members of the Association dealing with differences between employers and employed.

Secretaries and Offices: John German & Son, Ashby-de-la-Zouch.

Cable Address: "Germanson," Ashby-de-la-Zouch.

Sub-Group 3.
GYPSUM MINING AND QUARRYING.

Gypsum ASSOCIATION.

Total Membership: 12.

Objects: To promote the welfare and prosperity of the trade.

Secretary and Offices: G. Alfred Lewis, Midland Road, Derby.

Cable Address: "Lewis," Derby.

Exporting Members:

Cafferata & Co.
Carlisle Plaster Co.
Ford and Sons.
Goodacre Bros.
Gotham Co.
Gypsum Mines, Kingston.
Gypsum Mines, Mountfield.
Heaselden (S.).
Marblaegis, Ltd.
Sheppard (J. J.).
Staton & Co.
Wood Bros.

Sub-Group 4.—IRONSTONE MINING.

WEST COAST Hematite IRON ORE PROPRIETORS' ASSOCIATION.

Secretary and Offices: M. Kennedy, 34, Lowther Street, Whitehaven.

Sub-Group 6.—SALT.

Salt MANUFACTURERS' ASSOCIATION.

Secretary and Offices: H. Bowman, Colonial House, Liverpool.

Cable Address: "Saltcellar," Liverpool.

GROUP 2—MECHANICAL ENGINEERING

Sub-Group 1.
LOCOMOTIVE BUILDERS, CARRIAGE WAGON AND RAILWAY APPLIANCES, MANUFACTURERS, AND BOILER MAKERS.

ASSOCIATION OF PRIVATE OWNERS OF Railway Rolling Stock.

Secretary and Offices: Henry J. Taynton, Clarence Chambers, Gloucester.

Boiler MANUFACTURERS' ASSOCIATION.

Secretaries and Offices: Jones, Crewdson & Youatt, 7, Norfolk Street, Manchester.

Cable Address: "Crusoe," Manchester.

Locomotive MANUFACTURERS' ASSOCIATION.

Offices: 7, Hobart Place, Grosvenor Gardens, London, S.W.1.

Welded Boiler Makers' CONFERENCE.

Offices: Union Chambers, 45-47, Commercial Street, Halifax.

Engineering and National EMPLOYERS' FEDERATION.

Offices: Phoenix Chambers, Colmore Row, Birmingham.

Sub-Group 2.—MACHINE TOOL MAKERS.

Machine Tool TRADES' ASSOCIATION, LTD.

Secretary and Offices: Herbert G. Williams, M.Sc., M. Eng., A.M.I.C.E., 70, Victoria Street, Westminster, London, S.W.1.

Sub-Group 3.
MOTOR VEHICLE MANUFACTURERS.

ASSOCIATION OF BRITISH Motor MANUFACTURERS, LIMITED.

Total Membership: 69.

Objects: To develop and strengthen the British Motor and Allied Industries. The Association takes special measures to keep these Industries in touch with the demands of the Overseas Markets. It is formed of a number of Sections having powers of independent action and each representing a specific branch of Industry.

General Secretary and Offices: Horace Wyatt, 39, St. James's Street, London, S.W.1.

Telegraphic Address: "Abritimam," Phone, London.

Exporting Members:

Albion Motor Car Co., Ltd.
A. M. A. C., Ltd.
Armstrong Siddeley Motors, Ltd.
Arrol-Johnston, Ltd.
Associated Equipment Co., Ltd.
Austin Motor Co., Ltd.
Belsize Motors, Ltd.
B.S.A. Cycles, Ltd.
British Lighting & Ignition Co., Ltd.
Briton Motor Co., 1912, Ltd.
Butterfields, Ltd.
Beardmore, William & Co., Ltd.
Bean, J. Harper, & Co.
British Ensign Motors.
Berwick, F. W., & Co.
Cubitt's Engineering Co., Ltd.
Calthorpe Motor Co.
Clayton & Co., Huddersfield, Ltd.
Collier (H.) & Son, Ltd.
Commercial Cars, Ltd.
Crossley Motors, Ltd.
Crawley Agrimotor Co., Ltd.
Daimler Co., Ltd.
Dennis Bros., Ltd
Drew (A.) & Co., Ltd.
Elswick Hopper Cycle & Motor Co., Ltd
Enfield Cycle Co., Ltd.
Guy Motors, Ltd.
Hall (J. and E.), Ltd.
Halley's Industrial Motors, Ltd.
Humber, Ltd.
Lacre Motor Car Co., Ltd.
Lanchester Motor Co., Ltd.
Leyland Motors, 1914, Ltd.
Lucas (J.), Ltd.
Lake & Elliott, Ltd.
Marston, (John) Ltd.
Maudslay Motor Co., Ltd.
Napier (D.) & Son, Ltd
New Rover Cycle Co.
National Steel Foundry.
Phoenix Motors, Ltd.
Projectile & Engineering Co., Ltd.
Radnall (E. A.) & Co.
Rolls-Royce, Ltd.
Rover Co., Ltd.
Rudge-Whitworth, Ltd.
Rushmores, Ltd.
Saunderson Tractor & Implement Co., Ltd.
Scout Motors, Ltd.
Sheffield-Simplex Motor Works, Ltd.
Standard Motor Co., Ltd.
Star Engineering Co., Ltd.
Summerscales, Ltd.
Stevens (A. J.) & Co., 1914, Ltd.
Straker-Squire, Ltd.
Sunbeam Motor Car Co., Ltd.
Thorncycroft (John I.) & Co., Ltd.
Thwaites Bros., Ltd.
Tilling-Stevens Motors, Ltd.
Triplex Safety Glass Co., Ltd.
Tylor (J.) & Sons, Ltd.
Timesaver Farm Traders, Ltd.
Vandervell (C. A.) & Co., Ltd.
Vauxhall Motors, Ltd.

GROUP 2—MECHANICAL ENGINEERING—SUB-GROUP 3—*continued.*

Association of British Motor Manufacturers, Ltd. —*continued.*

Walker Bros., Wigan, Ltd.
White & Poppe, Ltd.
Wolseley Motors, Ltd.
Zenith Motors, Ltd.

BRITISH Cycle and Motor Cycle MANUFACTURERS' AND TRADERS' UNION, LTD.

Total Membership : 280.

Objects : To promote the interests of the British Cycle and Motor Cycle Trades and other trades and businesses allied therewith, including the trades of making accessories, machinery, apparatus, implements, and articles used in connection with the manufacture and use of all two and three-wheeled pedal and motor vehicles.

General Manager : Major H. R. Watling.

Secretary and Offices : Thos. Timerick, "The Towers," Warwick Road, Coventry, England.

Cable Address : "Union," Coventry.

Exporting Members :

Abingdon Works, Ltd.
Accles & Pollock, Ltd.
Alldays & Onions, Ltd.
Apollo Manufacturing Co.
Appleby (A.) Chain Co., Ltd.
Ariel Works, Ltd.
Ashby, Frank & Co.
Auto-Carriers, Ltd.
Avon India-Rubber Co., Ltd.
Baker (F. E.), Ltd.
Bat Motor Engineering Co.
Bates (W. & A.), Ltd.
Bayliss, Thomas & Co., Ltd.
Bayliss, Wiley & Co.
Benton & Stone, Ltd.
Best & Lloyd, Ltd.
Binks (C.), Ltd.
Birch Aircraft Manufacturing Co.
B.S.A. Cycles, Ltd.
Bluemel Bros., Ltd.
Bordesley Engineering Co., Ltd.
Bowden Brake Co., Ltd.
Bowden Wire, Ltd.
Bowns, Ltd.
Bradbury & Co., Ltd.
Brampton Bros., Ltd.
British Hub Co.
British Lighting & Ignition Co., Ltd.
British Piston Ring Co., Ltd.
Brooks (J. B.) & Co., Ltd.
Brough (W. E.) & Co.
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Brown Bros., Ltd.
Burney & Blackburn.
Butterfields, Ltd.
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Calcott Bros., Ltd.
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Constrictor Tyre Co.
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Coventry Dressguard Co.
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Coventry Plating & Presswork Co., Ltd.
Coventry Premier, Ltd.
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Enfield Cycle Co., Ltd.
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Francis & Barnett, Ltd.
Gough & Co.
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Kingsbury Engineering Co., Ltd.
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Leicester Rubber Co., Ltd.
Leatheries, Ltd.
Lindalls, Ltd.
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Lodge Plugs, Ltd.
Lombard Rim & Tube Co.
Lucas (J.), Ltd.

GROUP 2—MECHANICAL ENGINEERING—SUB-GROUP 3—*continued.*

British Cycle and Motor Cycle Manufacturers' and Traders' Union, Ltd.—*continued.*

Lucas Electrical Co., Ltd.
Lycett Saddle & Accessories Co., Ltd.
Macintosh (Chas.) & Co., Ltd.
March, Newark & Co., Ltd.
Marston (John), Ltd.
Martinsyde, Ltd.
Mead & Deakin.
Melen (F. & H.), Ltd.
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M.A.G. Engine Co., Ltd.
Micrometer Engineering Co., Ltd.
Middlemores (Coventry), Ltd.
Midland Gear Case Co.
Midland Rubber Co., Ltd.
Midland Wheel Co.
Miller & Co., Ltd.
Mills-Fulford, Ltd.
Minstrel & Rea Cycle Co., Ltd.
M.-L. Magneto Syndicate, Ltd.
Mohawk Cycle Co., Ltd.
Monopole Cycle & Motor Co., Ltd
Montgomery & Co., Ltd.
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M.P. Co.
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North & Sons, Ltd.
Norton Motors, Ltd.
Ollard Westcombe Co.
Olympic Cycle & Motor Co.
Oylers, Ltd.
Palmer Tyre, Ltd.
Parkes (Josiah) & Sons.
Patchquicks Patents, Ltd.
Patrick Engineering Co., Ltd
Pedley (J.) & Son, Ltd.
Perry (A. T.) Cycle Co.
Perry & Co., Ltd.
Petrie & Co.
Phelon & Moore, Ltd.
Phillips (A. J.) & Co.
Portable Tool & Engineering Co., Ltd
Powell & Hanmer, Ltd.
Prices' Co., Ltd.
Pugh (C. H.), Ltd.
Radnall (E. A.) & Co.
Raleigh Cycle Co., Ltd.
Raven Cycle Co.
Reed (H.) & Co.
Rex Motor Manufacturing Co., Ltd
Roberts (Alfred) & Sons, Ltd.
Robin Hood Cycle Co.
R.O.M. Tyre & Rubber Co.
Rotherham & Sons, Ltd.
Ruby Cycle Co.
Rudge-Whitworth, Ltd.
Runbaken Magnetos Co., Ltd.
Scott Motor Cycle Co., Ltd.
Scott Auto-Car Co., Ltd.
Self-Sealing Rubber Co., Ltd.
Severn Rubber Co., Ltd.
Showell (E.) & Sons, Ltd.
Sidecar Body Co.
Singer & Co., Ltd.
Smith (Alfred).
Smith (J. E.).
Smith (S.) & Sons, Ltd.
Sopwith Aviation & Engineering Co., Ltd.
Sparkbrook Manufacturing Co.
Speedwell Manufacturing Co., Ltd.
Spencer-Moulton (George) & Co., Ltd., and Wood Milne, Ltd.
Sphinx Manufacturing Co.
Stelastic Tyres, Ltd.
Sterling Metals, Ltd.
Stevens (A. J.) & Co., Ltd.
Stonehouse Works Co.
Stourbridge Rolling Mills.
Sturmey-Archer Gears, Ltd
Sun Cycle & Fittings Co., Ltd.
Swift of Coventry, Ltd.
Tan Sad Works.
Terry (H.) & Sons, Ltd.
Thompson Bros. (Bilston), Ltd.
Timson, Bros.
Tormo Manufacturing Co., Ltd.
Triumph Cycle Co., Ltd.
Trotman Patent Daudy Co.
Tryus Cycle Co.
Tyler Apparatus Co., Ltd.
Unique & Unity Cycle Co., Ltd.
Vandervell (C. A.) & Co., Ltd.
Veloce, Ltd.
Victoria Motor & Cycle Co., Ltd.
Villiers Engineering Co., Ltd.
W.T.T. Engineering Co., Ltd.
Wakefield (C. C.) & Co.
Wall (A. W.), Ltd.
Warrick (John) & Co., Ltd.
Watsonian Folding Side Car Co., Ltd.
Whitley Manufacturing Co., Ltd
Wilby (A. E.), Ltd.
Wilkin Motors, Ltd.
Williams (Ed.).
Williamson Motor Co., Ltd.
Wiseman (A.), Ltd.
Wooler Engineering Co., Ltd.
Wulfruna Engineering Co., Ltd.
XI'ALL, Ltd.
Zenith Motors, Ltd.

Sub-Group 4.

AIRCRAFT CONSTRUCTORS.

SOCIETY OF BRITISH Aircraft CONSTRUCTORS, LTD.

Total Membership : 130.

Objects : The Society is the representative body of the British Aircraft Industry, both on its construction and operating sides.

Secretary and Offices : Chas. V. Allen, 1, Albermarle Street, London, W. 1.

Telegraphic Address : "Thesbac Piccy," London.

All enquiries should be addressed to the Society.

Sub-Group 5.

GENERAL MECHANICAL ENGINEERS :—

(*a*) Sluices, (*b*) Weighing and Testing Machinery, (*c*) Cranes and Lifts, (*d*) Steel Barrels, Kegs and

GROUP 2—MECHANICAL ENGINEERING—SUB-GROUP 5—*continued.*

General Mechanical Engineers—*continued.*

Drums, (*e*) Power Transmission, (*f*) Fan, Humidifying and Dust Removing Apparatus, (*g*) Dairy Appliances, (*h*) Laundry Machinery, (*i*) Refrigerating and Cooling Machinery, (*j*) Elevators and Conveyors.

ASSOCIATION OF BRITISH **Driving Chain** MANUFACTURERS.

Total Membership : 5.

Objects : The encouragement, promotion and protection of manufacturers of Driving Chains, and the assistance by all lawful means of the organisation of the industry, and to foster and develop the use and application of chain gearing.

Secretary and Offices : F. Lindsay Fisher, F.C.A., Bassishaw House, Basinghall Street, London, E.C.2.

Telegrams : "Portend," Ave, London.

Exporting Members :

"Alfred Appleby" Chain Co., Ltd.
Brampton Bros., Ltd.
Coventry Chain Co., Ltd.
Hans Renold, Ltd.
Perry & Co., Ltd.

THE BRITISH **Engineers'** ASSOCIATION (INCORPORATED).

Total Membership : 576.

Objects : To provide a central National organisation in the Engineering Industry for the protection and promotion of British Engineering interests at home and **Abroad.**

Activities :

(1) Publishing, in various languages, Classified Directories of its Members and their Manufactures which, supplemented by other publicity, work and correspondence, induce the flow of trade enquiries from overseas.

(2) Dealing with trade enquiries, specifications and correspondence in French, Italian, Spanish, Portuguese, Swedish, Norwegian, Russian and German, translating when necessary and distributing the enquiries and information to the Members of the Trade Groups concerned.

(3) Employing Special Investigators and Correspondents to investigate and report upon the Overseas Markets for the products of British Engineering Industry.

(4) Assisting Members to find suitable Agents or Representatives abroad.

(5) Reporting on the financial status of Overseas enquiries and customers.

(6) Conducting British Engineering Propaganda abroad.

(7) Conducting a Commercial Engineering Information Bureau.

(8) Promoting concerted action on the part of the Engineering Industry or the constituents of any section or sections thereof.

(9) Promoting co-operative action in manufacturing and trading affairs to secure Overseas trade.

(10) Assisting Industrial Economic Propaganda at home.

(11) Assisting Research, Invention and Education.

(12) Publishing a B.E.A. Bulletin and assisting in the conduct of the "British Engineers' Home and Export Journal" in which the Bulletin appears.

(13) Publishing Pamphlets and Memoranda on subjects of current importance to the Engineering Industry.

(14) Co-operating with the Federation of British Industries and other Industrial and Trade Organisations.

(15) Acting as an authoritative medium of communication between the Engineering Industry, or a section thereof, and Government Departments, Inland Transportation Authorities, Shipping Companies and Combines, Educational Authorities, Chambers of Commerce Overseas, etc.

(16) Holding a watching brief for the Engineering Industry and taking action to have its views and interests represented whenever they are involved in new legislation or other developments. The Association itself is not a trading concern, but it assists the trading operation of its members by every means in its power.

Buyers of **Machinery,** Plant, Tools, Materials or other products of the Engineering and Allied Industries are invited to send their enquiries (written in any language) to this Association, which will translate and transmit them to members able to deal with them, and will generally facilitate the transaction of the business.

Director and Offices : D. A. Bremner, Esq., O.B.E., M.I.Mech.E., M.I.E.E., M.I.M.M., 32, Victoria Street, London, S.W.1.

Cable Address : "Yincochi," London.

Exporting Members :

Ackroyd & Best, Ltd.
Adamson (Joseph) & Co.
Aitchison (Blair), Ltd
Aitken & Co.
Akrill (C.) & Co., Ltd.
Albion Motor Car Co., Ltd.
Allen & Simmonds, Ltd.
Allen (W. H.), Son & Co., Ltd.
Alley & MacLellan, Ltd.
Angus (George) & Co., Ltd.
Ardrossan Dry Dock & Shipbuilding Co., Ltd.
Armstrong & Main, Ltd.
Armstrong, Stevens & Son, Ltd.
Arrol (Sir Wm.) & Co., Ltd.
Arundel & Co.
Ashton, Frost & Co., Ltd.
Ashton (Thos. A.), Ltd.
Ashwell & Nesbit, Ltd.
Ashworth & Parker.
Atkins (Harry F.).
Atkins (Wm.) & Co., Ltd.
Auld (David) & Sons, Ltd.
Austin Motor Co., Ltd.
Avery (W. & T.), Ltd
Babcock & Wilcox, Ltd.
Bailey (Sir W. H.) & Co., Ltd.
Baker (John) & Co. (Rotherham), Ltd.
Baldwin (Samuel) & Heap, Ltd.
Balfour (Arthur) & Co., Ltd.
Bamford (F.) & Co.

GROUP 2—MECHANICAL ENGINEERING—SUB-GROUP 5—*continued.*

British Engineers' Association—*continued.*

Barb Engineering Co.
Barclay, Curle & Co., Ltd.
Barnsley (John) & Sons, Ltd.
Bayliss, Jones & Bayliss, Ltd.
Beardmore (Wm.) & Co., Ltd.
Beardshaw (J.) & Son, Ltd.
Beckett (Alfred) & Sons, Ltd.
Bedford Engineering Co., Ltd.
Beldam Packing & Rubber Co., Ltd.
Belsize Motors, Ltd.
Bengal Iron & Steel Co., Ltd.
Benham & Sons, Ltd.
Bennis (Ed.) & Co., Ltd.
Bentall (E. H.) & Co., Ltd.
Berry (Henry) & Co., Ltd.
Bertram (James) & Son, Ltd.
Bertrams, Ltd.
Bever, Dorling & Co., Ltd.
Billington & Newton, Ltd.
Bird (W. H.) & Sons.
Blackstone & Co., Ltd.
Blakeborough (J.) & Sons.
Boby (Robert), Ltd.
Booth (John) & Sons.
Booth (Joseph) & Bros., Ltd.
Boulton & Paul, Ltd.
Braby (Fredk.) & Co., Ltd.
Brackett (F. W.) & Co., Ltd.
Bradley & Craven, Ltd.
Braime (T. F.) & Co., Ltd.
Braithwaite & Co.
Brayshaw Furnaces & Tools, Ltd.
Brecknell, Munro & Rogers, Ltd.
Bridge (David) & Co., Ltd.
Brightside Foundry & Engineering Co., Ltd.
Bristol Pneumatic Tools, Ltd.
Bristol Tramways & Carriage Co., Ltd.
British Aluminium Co., Ltd.
British & Colonial Aeroplane Co., Ltd.
British Electric Transformer Co., Ltd.
British Hydraulic Foundry Co., Ltd.
British Insulated & Helsby Cables, Ltd.
British Oxygen Co., Ltd.
British Reinforced Concrete Engineering Co., Ltd.
Broadbent (Robt.) & Son, Ltd.
Broadfoot (John) & Sons, Ltd.
Brockhouse (J.) & Co., Ltd.
Brook (Hirst) & Co., Ltd.
Brooke (J. W.) & Co., Ltd.
Brotherhood (Peter), Ltd.
Broughton Copper Co., Ltd.
Brown Bros. & Co., Ltd.
Brown (D.) & Co.
Brown (John) & Co., Ltd.
Brownlie & Murray, Ltd.
Bruntons.
Buckton (Joshua) & Co., Ltd.
Bullivant & Co., Ltd.
Butlin (Thomas) & Co., Ltd.
Caledonian Wire Rope Co., Ltd.
Callender's Cable & Construction Co., Ltd.
Cambridge & Paul Instrument Co., Ltd.
Cammell Laird & Co., Ltd.
Campbell & Calderwood.
Campbells & Hunter, Ltd.
Campling Gilbert, Ltd.
Cargo Fleet Iron Co., Ltd.
Carmichael (James) & Co., Ltd.
Chambers (John), Ltd.
Chaplin (Alex.) & Co., Ltd.
Clarke, Chapman & Co., Ltd.
Clay Cross Co., Ltd.
Clayton & Co. (Huddersfield), Ltd.
Clifton & Baird, Ltd.
Clifton & Waddell.
Cochrane & Co., Ltd.
Cockburns, Ltd.
Coil Clutch Co., Ltd.
Cole, Marchent & Morley, Ltd.
Commercial Cars, Ltd.
Consett Iron Co. Ltd.
Cooke (T.) & Sons, Ltd.
Cooke (William) & Co., Ltd.
Cooper & Greig, Ltd.
Cooper & Turner, Ltd.
Cowans, Sheldon & Co., Ltd.
Crabtree (R. W.) & Sons.
Cradock (George) & Co., Ltd.
Craig (A. F.) & Co., Ltd.
Craig & Donald, Ltd.
Craven Bros. (Manchester), Ltd.
Cravens Railway Carriage & Wagon Co., Ltd.
Crighton & Co.
Crittall Manufacturing Co., Ltd.
Crompton & Co., Ltd.
Crossley Bros., Ltd.
Crosthwaite Engineering & Furnace Co Ltd.
Crowley (John) & Co., Ltd.
Cubitt's Engineering Co., Ltd.
Cunliffe & Croom, Ltd.
Curtis's & Harvey, Ltd.
Danks (Alfred), Ltd.
Darlington Forge Co., Ltd.
Davey, Paxman & Co., Ltd.
Davidson & Co., Ltd.
Davis (J. T.), Ltd.
Davy Bros., Ltd.
Dawnay (Archibald D.) & Sons, Ltd.
Day, Summers & Co., Ltd.
De Bergue & Co., Ltd.
Delta Metal Co., Ltd.
Denison (Samuel) & Son, Ltd.
Denny (W.) & Bros., Ltd.
Dewhurst's Engineering Co., Ltd.
Dixon (S.) & Son, Ltd.
Donkin (The Bryan Donkin Co.), Ltd.
Dorman, Long & Co., Ltd.
Douglas & Grant, Ltd.
Douglas, Lawson & Co.
Doxford (William) & Sons, Ltd.
Drysdale & Co., Ltd.
Dudbridge Iron Works, Ltd.
Dunsmuir & Jackson, Ltd.
Dutton (Joseph).
Eadie Bros. & Co., Ltd.
East Ferry Road Engineering Works Co., Ltd.
Easterbrook, Allcard & Co., Ltd.
Eastwood, Swingler & Co., Ltd.
Edmeston (Archibald) & Sons, Ltd.
Electrical Apparatus Co., Ltd.
Electric Control, Ltd.
Electric & Ordnance Accessories Co., Ltd.
Electromotors, Ltd.
Ellison (George).
English Electric Co.—
- Coventry Ordnance Works, Ltd.
- Dick, Kerr & Co., Ltd.
- Phoenix Dynamo Manufacturing Co., Ltd.
- Siemens Bros. Dynamo Works, Ltd.

GROUP 2—MECHANICAL ENGINEERING—SUB-GROUP 5—*continued.*

British Engineers' Association—*continued.*

English Electric Co., Ltd.—*continued.*
United Electric Car Co., Ltd.
Willans & Robinson, Ltd.
Erith's Engineering Co., Ltd.
Erskine, Heap & Co., Ltd.
Estler Bros.
Etchells, Congdon & Muir, Ltd.
Eva Bros.
Evershed & Vignoles, Ltd.
Farmer (Sir James) & Sons, Ltd.
Farringdon Propeller & Engineering Co., Ltd.
Ferguson Bros. (Port Glasgow), Ltd.
Ferguson, Pailin, Ltd.
Finnieston Engineering Co., Ltd.
Firth (Thos.) & Sons, Ltd.
Fisher, Humphries & Co., Ltd.
Flather (W. T.), Ltd.
Fleming & Ferguson, Ltd.
Follows & Bate, Ltd.
Forgrove Machinery Co., Ltd.
Foster, Blackett & Wilson, Ltd.
Fraser (W. J.) & Co., Ltd.
Fullerton, Hodgart & Barclay, Ltd.
Galloways, Ltd.
Gardner (L.) & Sons, Ltd.
Garner, Telford & Hardman, Ltd
Garrett (Richard) & Sons, Ltd.
General Electric Co.. Ltd.
Gilkes (Gilbert) & Co., Ltd.
Glasgow Steel Roofing Co., Ltd
Glenfield & Kennedy, Ltd.
Gleniffer Motors, Ltd.
Glover Bros.
Glover (W. T.) & Co., Ltd.
Graham (Alfred) & Co.
Great Central Co-operative Engineering & Ship Repairing Co., Ltd.
Green (E.) & Son, Ltd.
Green (Thos.) & Son, Ltd.
Greenwood & Batley, Ltd.
Gresham & Craven, Ltd.
Guest & Chrimes, Ltd.
Gummer (G. & W.), Ltd
Gwynnes, Ltd.
Hadfields, Ltd.
Haggie (D. H. & G.), Ltd.
Hall (J. & E.), Ltd.
Hall (J. P.) & Co., Ltd.
Hall (Lewis) & Co.
Halley's Industrial Motors, Ltd.
Hamilton (J. & D.), Ltd.
Hampson Bros., Ltd.
Hampton (C. & J.), Ltd.
Harfield & Co.
Harrison Patent Knitting Machine Co., Ltd.
Hassall (William) & Sons.
Hathorn (Davey) & Co., Ltd.
Hattersley & Davidson, Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd
Hayward-Tyler & Co., Ltd.
Heap (Joshua) & Co., Ltd.
Heatly-Gresham Engineering Co., Ltd.
Heenan & Froude, Ltd.
Hemmings & Co., Ltd.
Hendry (James), Ltd.
Henley's (W. T.) Telegraph Works Co., Ltd.
Herbert (Alfred), Ltd.
Herbert (Edward G.), Ltd
Hetherington (John) & Sons, Ltd.
Heywood (S. H.) & Co., Ltd.
Hick, Hargreaves & Co., Ltd.
Hill & Smith, Ltd.
Hill (Charles) & Sons.
Hind & Lund, Ltd.
Hingley (N.) & Sons, Ltd.
Hodkinson (James, Salford), Ltd.
Holbrook & Sons.
Holden & Brooke, Ltd.
Holdsworth & Sons, Ltd.
Hollingdrake (Henry) & Son, Ltd.
Hollings & Guest. Ltd.
Holman Bros., Ltd.
Hood (T.) & Co., Ltd.
Hopkinson (J.) & Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Horsfall & Bickham, Ltd.
Horstman Cars, Ltd.
Horstmann Gear Co., Ltd.
Horton & Son, Ltd.
Howard Pneumatic Engineering Co., Ltd.
Howden (James) & Co., Ltd.
Howell & Co., Ltd.
Hudson (Robert), Ltd.
Hudson's Electrical Engineering Co., Ltd.
Hughes & Lancaster, Ltd.
Hulse & Co., Ltd.
Hunslet Engine Co., Ltd.
Hunt Bros. (Oldbury), Ltd.
Hunt & Moscrop, Ltd.
Hurst, Nelson & Co., Ltd.
Hydraulic Engineering Co., Ltd.
Imperial Light, Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Inglis (A. & J.), Ltd.
Inglis (G.) & Co., Ltd.
Isler (C.) & Co., Ltd.
Jack (Alexander) & Co.
"J. D." Insulating & Refrigerating Co., Ltd.
Jones (A. A.) & Shipman, Ltd.
Kaye (Joseph) & Sons, Ltd.
Kearns (H. W.) & Co., Ltd.
Keay (E. C. & J.), Ltd.
Keith (James) & Blackman Co., Ltd.
Kent (Geo.), Ltd.
Kenyon Ironworks Co., Ltd.
Kincaid (John G.) & Co., Ltd.
King (H. J. H.) & Co., Ltd.
Kirby Banks Screw Co., Ltd.
Kirkaldy (John), Ltd.
Kirkstall Forge Co., Ltd.
Lake & Elliott, Ltd.
Lancashire Dynamo & Motor Co., Ltd.
Lancaster & Tonge, Ltd.
Latex Engineering Co., Ltd.
Lawton Bros.
Leadbeater & Scott.
Lee, Howl & Co., Ltd.
Leeds Engineering & Hydraulic Co., Ltd.
Leeds Forge Co., Ltd.
Leonard (A.) & Co.
Lister (R. A.) & Co., Ltd.
Liverpool Refrigeration Co., Ltd
Llewellins & James, Ltd.
Llewellin's Machine Co.
Lloyd (F. H.) & Co., Ltd.
Lobnitz & Co., Ltd.
Loudon Bros., Ltd.
Loveridge, Ltd.

GROUP 2—MECHANICAL ENGINEERING—SUB-GROUP 5—*continued.*

British Engineers' Association—*continued.*

Luke & Spencer, Ltd.
Lumsden Machine Co., Ltd.
Lysaght (John), Ltd.
Mackenzie & Moncur, Ltd.
MacLaren (Robert) & Co.
MacLellan (P. & W.), Ltd.
Maiden & Co., Ltd.
Makin (Wm.) & Sons.
Manchester Aluminium Co.
Manchester Water Meter Co
Marsh Bros. & Co., Ltd.
Marshall, Sons & Co., Ltd.
Martin's Cultivator Co. Ltd.
Masson, Scott & Co., Ltd.
Mather & Platt, Ltd.
Matthews & Yates, Ltd.
Mavor & Coulson, Ltd.
McKinnon (Wm.) & Co., Ltd.
Measures Bros. (1911), Ltd.
Mellowes & Co., Ltd.
Middleton Bros.
Middleton (Robert) & Co.
Midland Electric Manufacturing Co., Ltd.
Midland Railway Carriage & Wagon Co., Ltd.
Miller & Co., Ltd.
Milne (James) & Son, Ltd.
Mining Engineering Co., Ltd.
Miris Steel Co., Ltd.
Mitchell (D.) & Co., Ltd.
Monks, Hall & Co., Ltd.
Moreland, Hayne & Co., Ltd.
Morris (Herbert), Ltd.
Morton (B. K.) & Co.
Morton (Francis) & Co., Ltd.
Moss & Gamble, Bros.
Muir & Findlay.
Muir (Wm.) & Co., Ltd.
Mumford (A. G.), Ltd.
Musgrave & Co., Ltd.
Musgrave (John) & Sons (1913), Ltd.
Nasmyth, Wilson & Co., Ltd.
National Steel Foundry (1914), Ltd.
Neill (W.) & Son, Ltd.
New Destructor Co., Ltd.
Newall (R. S.) & Son, Ltd.
Newalls Insulation Co., Ltd.
Newton, Bean & Mitchell.
Nobel's Explosives Co., Ltd.
Noble & Lund, Ltd.
North British Diesel Engine Works, Ltd.
North British Rubber Co., Ltd.
North-Eastern Marine Engineering Co., Ltd.
Nortons (Tividale), Ltd.
Oilbath, Axlebox, Fittings and Engineering Co., Ltd.
Owen & Dyson, Ltd.
Park Gate Iron & Steel Co., Ltd.
Parkinson (J.) & Son.
Parmiter, Hope & Sugden, Ltd.
Parsons (C. A.) & Co., Ltd.
Parsons Marine Steam Turbine Co., Ltd.
Paterson Engineering Co., Ltd.
Pearn (Frank) & Co., Ltd.
Pease & Partners, Ltd.
Peckett & Sons, Ltd.
Peebles (Bruce) & Co., Ltd.
Pegler Bros. (Doncaster), Ltd.
Petters, Ltd.
Pitkin (James) & Co., Ltd.
Plenty & Son, Ltd.
Pollard (Fredk.) & Co., Ltd.
Pollock & Macnab, Ltd.
Pott, Cassels & Williamson.
Pratt (F.) & Co., Ltd.
Prestwich (J. A.) & Co.
Priestman Bros., Ltd.
Pritchett & Gold & Electrica Power Storage Co., Ltd.
Pulsometer Engineering Co., Ltd.
Ransomes & Rapier, Ltd.
Ransomes, Sims & Jefferies, Ltd.
Ransome-vermehr Machinery Co., Ltd.
Reavell & Co., Ltd.
Redpath, Brown & Co., Ltd.
Rees Roturbo Manufacturing Co., Ltd.
Reid Bros., Engineers, Ltd.
Reid Gear Co.
Renold (Hans), Ltd.
Reyrolle (A.) & Co., Ltd.
Richardson, Tuer & Co., Ltd.
Richardsons, Westgarth & Co., Ltd.
Rivet, Bolt & Nut Co., Ltd.
Roberts Bros.
Roberts (Charles) & Co., Ltd.
Robertson (W. H. A.) & Co., Ltd.
Robey & Co., Ltd.
Robinson (Thos.) & Son, Ltd
Robson (John) (Shipley), Ltd.
Robson (Joseph) & Sons.
Roe (A. V.) & Co., Ltd.
Ropeway's, Ltd.
Rose, Downs & Thompson, Ltd
Ross & Duncan.
Ross, Courtney & Co., Ltd.
Rossell (Henry) & Co., Ltd.
Rotherham Forge & Rolling Mills Co., Ltd.
Rotherham & Sons, Ltd.
Rowan (David) & Co., Ltd.
Rowland (B. R.) & Co., Ltd
Royce, Ltd.
Rubery, Owen & Co.
Russell (George) & Co., Ltd.
Russell (John) & Co., Ltd.
Ruston & Hornsby, Ltd.
Ryder (Thomas) & Son, Ltd.
St. Helens Cable & Rubber Co., Ltd.
Samuelson & Co., Ltd.
Sands (Geo) & Son, Ltd.
Sandycroft, Ltd.
Scholey Clutch Co., Ltd.
Scott & Hodgson, Ltd.
Scott's Shipbuilding & Engineering Co., Ltd.
Scottish Tube Co., Ltd.
Seagers, Ltd.
Shanks (Alexander) & Son, Ltd.
Shardlow (Ambrose) & Co., Ltd.
Shaw (Francis) & Co., Ltd.
Shaw, Son & Greenhalgh, Ltd.
Siebe, Gorman & Co., Ltd.
Simon (Henry), Ltd.
Simons (William) & Co., Ltd.
Smith, Barker & Willson.
Smith & Pearson, Ltd.
Smith (Thomas) & Sons (Rodley), Ltd.
Smith (Thos. & Wm.), Ltd.
Smith's Dock Co., Ltd.
Spencer & Co., Ltd.
Spencer & Cook, Ltd.
Spencer (Walter) & Co., Ltd.

GROUP 2—MECHANICAL ENGINEERING—SUB-GROUP 5—*continued.*

British Engineers' Association—*continued.*

Spencer (W. H.) & Co.
Standard Engineering Co., Ltd.
Standard Motor Co., Ltd.
Steel Construction Co., Ltd.
Steel, Peech & Tozer, Ltd.
Stephen (Alex.) & Sons, Ltd.
Sterne (L.) & Co., Ltd.
Steven (A. & P.).
Stewart, Duncan & Co , Ltd.
Stewarts & Lloyds, Ltd.
Stirling Boiler Co., Ltd.
Stock & Collings.
Stothert (G. K.) & Co., Ltd.
Stothert & Pitt, Ltd.
Strachen & Henshaw, Ltd.
Stringertype Manufacturing Co., Ltd.
Stubbs (Joseph), Ltd.
Submersible Motors, Ltd.
Swan, Hunter & Wigham Richardson, Ltd.
Swift (George) & Sons, Ltd.
Swift, Levick & Sons.
Sykes (W. R.) Interlocking Signal Co., Ltd.
Tangent Tool Co. (Cosmos), Ltd.
Tattersall (A. R.) & Co.
Tangyes, Ltd.
Taylor & Hubbard.
Tennent (R. B.) Ltd.
Thom (John).
Thom, Lamont & Co., Ltd.
Thomas (Bertram).
Thornycroft (John I.) & Co., Ltd.
Thwaites Brothers, Ltd.
Tilling-Stevens, Ltd.
Torbinia Engineering Co (1916), Ltd.
Torrance & Sons.
Trojan, Ltd.
Tubes, Ltd.
Tullis (D. & J.), Ltd.
Turner Brothers Asbestos Co., Ltd.
Turner (E. R. & F.), Ltd.
Turton Bros. & Matthews, Ltd.
Tylor, Water & Sanitary Co., Ltd.
Tyzack (W. A.) & Co.
Unbreakable Pulley & Millgearing Co., Ltd.
United Brassfounders & Engineers, Ltd.
Vaughan Crane Co., Ltd.
Vickers, Ltd.
Vlasto-Clark & Watson.
Vulcan Foundry, Ltd.
Wadsworth (Wm.) & Sons, Ltd.
Walker Bros. (Wigan), Ltd.
Wallsend Slipway & Engineering Co., Ltd.
Wallwork (Henry) & Co., Ltd.
Ward & Goldstone.
Ward (Thos. W.), Ltd.
Ward Williams (Henry).
Wardle Engineering Co., Ltd.
Waterfall (H. & R.) & Barber.
Watson, Laidlaw & Co., Ltd.
Watts Bros. (Sheffield), Ltd.
Waygood-Otis, Ltd.
Webb (Joseph) & Sons, Ltd.
Webster & Bennett, Ltd.
Weir (G. & J.), Ltd.
Welch & Co., Ltd.
Weldless Steel Tube Co., Ltd.
West's Gas Improvement Co., Ltd.
Westwood (Joseph) & Co., Ltd.
Whitakers (Engineers), Ltd.
White (Richard) & Sons.
White (J. Samuel) & Co., Ltd.
White (Thomas) & Sons, Ltd.
Whitehead & Poole, Ltd.
Wild (M. B.) & Co., Ltd.
Williams (Henry), Ltd.
Wills (W. & F.), Ltd.
Windsor Sheet Metal Works, Ltd.
Wolfe-Keene Engineering Co., Ltd.
Wolseley Motors, Ltd.
Wolverhampton Steel & Iron Co., Ltd
Wood (Edward) & Co., Ltd.
Wood (John) & Sons, Ltd.
Worsley Mesnes Ironworks, Ltd.
Worthington (W. H.), Ltd.
Yarrow & Co., Ltd.
Yorkshire Engine Co., Ltd.

Becos Traders, Ltd., (*Formerly* BRITISH ENGINEERING CO. OF RUSSIA & SIBERIA, LTD.)

Head Office: Central House, Kingsway, London, W.C.2.

Works: Becos Automobile Factory, Mititshi, Nr. Moscow.

Cable Address: "Becoslim," Westcent, London.

Codes Used: Western Union, Bentley's and Marconi's.

Head Office in Russia: Moika 58, Petrograd.

Branch Offices in Russia: Miasnitzkaya 3, Moscow. Instituteskaya, Kieff. Nijni Novgorod. The Quay, Archangel. Omsk. Pushkinskaya, Ekaterinburg. Aleutskaya 11, Vladivostok. Khabarovsk. Novorossisk. *In Finland:* Annegatan 15, Helsingfors.

Exporting Members:

Acton & Borman, Ltd.
Anglo-Enamelware, Ltd.
Baldwins, Ltd.
Barford & Perkins, Ltd.
Belliss & Morcom, Ltd.
Bell's United Asbestos Co., Ltd.
Birkinshaw (W. G.) & Co.
Boby (Wm.) & Son.
Bowater (J. J.).
Brightside Foundry & Engineering Co., Ltd.
Burgess (W. J. & C. T.).
Chillington Tool Co., Ltd.
Cooke (W.) & Co., Ltd.
Crossley Bros., Ltd.
Crossley Motors, Ltd.
Dampney (J.) & Co., Ltd.
Davidson & Co., Ltd.
Dee (Jos.) & Sons.
Denison (Saml.) & Son, Ltd.
Denny (Wm.) & Bros., Ltd.
Evans (Jos.) & Sons.
Fairbairn, Lawson, Combe Barbour, Ltd.
Falkirk Iron Co., Ltd.
Ferodo, Ltd.
Ferranti, Ltd.
Forgrove Machinery Co., Ltd.
Fox Bros. (Sheffield), Ltd.
Frost Bros.
Gandy Belt Manufacturing Co., Ltd.
Gibson (A. L.) & Co.
Gilkes (Gilbert) & Co.

GROUP 2—MECHANICAL ENGINEERING—SUB-GROUP 5—*continued.*

Becos Traders, Ltd.—*continued.*

Glenfield & Kennedy, Ltd.
Gloucester Railway Carriage & Wagon Co., Ltd.
Goode (Thos.), Ltd.
Grover & Co., Ltd.
Gundry (Joseph) & Co., Ltd.
Hadfields, Ltd.
Hall (J. & E.), Ltd.
Harvey (G. A.) & Co., Ltd.
Hinks (J.) & Son, Ltd.
Hoffman Manufacturing Co., Ltd.
Holman Bros., Ltd.
Howard (J. & F.).
Hudson (Robt.), Ltd.
Hunslet Engine Co., Ltd.
Jonas & Colver, Ltd.
Kaye (J.) & Sons, Ltd.
Kenrick (A.) & Sons, Ltd
Kent (Geo.), Ltd.
Kitson Empire Lighting Co., Ltd.
Lacy-Hulbert & Co.
Lamp Manufacturing Co., Ltd.
Marshall Sons & Co., Ltd.
Merryweather & Sons, Ltd.
Musgrave (J.) & Sons (1913), Ltd.
Needham, Veall & Tyzack, Ltd.
Nicholson (W. N.) & Sons, Ltd.
Nobel's Explosives, Ltd.
Peters (G. D) & Co., Ltd.
Pulsometer Eng. Co., Ltd.
Ransome (A.) & Co., Ltd.
Ropeways, Ltd.
Rose Downs & Thompson, Ltd.
Samuelson & Co., Ltd.
Scottish Tubes Co., Ltd.
Simons (Wm.) & Co., Ltd.
Smith & Coventry, Ltd.
Spencer & Co., Ltd.
Stanley (W. F.) & Co., Ltd.
Thwaites Bros., Ltd.
Trewhella Bros. Pty., Ltd.
Tyzack (W.) Sons & Turner, Ltd.
Unbreakable Pulley & Millgearing Co., Ltd.
Vipan & Headly.
Waide & Sons, Ltd.
Ward & Payne.
Waters Electrical Manufacturing Co., Ltd.
Watson Laidlow & Co., Ltd.
Wifley Co., Ltd.
Wilder (John).

Sub-Group 6.—AGRICULTURAL ENGINEERS

Agricultural Engineers' ASSOCIATION.

Secretary and Offices : J. King Stewart, 70, Fenchurch Street, London, E.C.3.

Cable Address : "Stewartry," London.

Sub-Group 7.—HEAVY ENGINE MAKERS.

Winding Engine MAKERS' ASSOCIATION.

Secretaries and Offices : W. B. Peat & Co., 11, Ironmonger Lane, London, E.C.2.

Sub-Group 8.

TEXTILE MACHINERY MAKERS.

Loom MAKERS' ASSOCIATION.

Secretary and Offices : L. D. Kidson, 1, Booth Street, Manchester.

IRISH POWER **Loom** MANUFACTURERS' ASSOCIATION.

Offices : 7, Donegal Square West, Belfast.

Textile Machinery MAKERS' ASSOCIATION

Total Membership : 20.

Secretary and Offices : L. D. Kidson, F.C.A., 1, Booth Street, Manchester.

Exporting Members :

Ayrton & Co. (Wm.).
Arundel & Co., Ltd.
Ashworth (Elijah).
Broadbent (Robt.) & Son, Ltd
Brooks & Doxey, Ltd.
Chadwick Machine Co., Ltd.
Coulthard & Co., Ltd.
Dobson & Barlow, Ltd.
Garnett (P. & C.), Ltd.
Haigh (John) & Dons, Ltd.
Halstead (John) & Son.
Hetherington (John) & Sons, Ltd.
Holt (Thos.), Ltd.
Lees (Asa) & Co., Ltd.
Platt Bros. & Co., Ltd.
Stubbs (Joseph), Ltd.
Tatham (W.), Ltd.
Taylor, Lang & Co., Ltd.
Trelfall (Richard).
Whiteley (Wm.) & Sons, Ltd.

Sub-Group 12

COKE OVENS, GAS CONVEYING AND CHEMICAL PLANT.

SOCIETY OF BRITISH **Gas** INDUSTRIES.

Total Membership : 123.

Secretary and Offices : Arthur L. Griffith, 46, Queen Victoria Street, London, E.C.4.

Telegraphic Address : "Treforgan," Cannon, London.

Objects : To promote the consideration and discussion of all questions affecting Gas Works Contractors and Manufacturers, and to diffuse amongst its members information on all matters affecting the Gas Industries.

Sub-Group 13.

HEATING AND COOKING APPARATUS.

SOCIETY OF BRITISH **Gas** INDUSTRIES.

(*See* Group 2, Sub-Group 12.)

GROUP 3 – SHIPBUILDING, MARINE ENGINEERING CONSTRUCTIONAL STEELWORK & ALLIED TRADES

Sub-Group 1.—SHIPBUILDING.

Shipbuilding EMPLOYERS' FEDERATION.

Objects: Principally to watch over, protect and advance the interests of Shipbuilders and Shiprepairers in Great Britain.

Secretary and Offices: Sir Charles J. O. Sanders, K.B.E., 9, Victoria Street, London, S.W.1.

Engineers and Shipbuilders EMPLOYERS' ASSOCIATION.

Offices: Barry Graving Dock, Barry.

TEES & HARTLEPOOL **Shipbuilders'** ASSN.

Secretary and Offices: A. Kennedy, "Kinnoull," Dovecot Street, Stockton-on-Tees.

Sub-Group 2.

BRIDGE AND CONSTRUCTIONAL IRONWORK.

Bridge & Constructional Ironwork ASSN.

Offices: 11, Ironmonger Lane, London, E.C.2.

LONDON **Constructional Engineers'** ASSN.

Offices: 11, Ironmonger Lane, London, E.C.2.

Patent Glazing CONFERENCE.

Offices: 37A, Waterloo Street, Birmingham.

SOUTH STAFFORDSHIRE **Ironmasters'** ASSN.

Total Membership: 55.

Objects: To promote an interchange of information on all subjects of interest to the trade; to secure united action and mutual support for its general welfare; to watch Parliamentary Bills relating to Railways, Canals, and Foreign Tariffs, or commercial matters affecting the interests of employers and employed.

Secretary and Offices: Richard Lowndes, Beauty Bank House, Stourbridge.

Telegraphic Address: "Lowndes," Stourbridge

Exporting Members:

Adams (George) & Sons, Ltd.
Bagnall (John) & Sons, Ltd.
Bradley (John) & Co.
Bromford Iron Co., Ltd.
District Iron & Steel Co., Ltd.
Downing (Samuel) & Son, Ltd.
Earl of Dudley's Round Oak Works, Ltd.
Grazebrook (M. & W.), Ltd.
Guest, Keen & Nettlefolds, Ltd.
Harts Hill Iron Co., Ltd.
Heath (Robert) & Low Moor, Ltd.
Hingley (N.) & Sons, Ltd.
Holcroft (J. & C.), Ltd.
Johnson's Iron and Steel Co., Ltd.
Knutton Iron and Steel Co., Ltd.
Lees (J. B. & S.), Ltd.
Lilleshall Co., Ltd.
Lones, Vernon & Holden, Ltd.
Parkes (E.) & Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Russell (John) & Co., Ltd.
Shelton Iron, Steel & Coal Co., Ltd
Shropshire Iron Co., Ltd.
Simpson (F. R.) & Co., Ltd.
Thomas (G. & R.).
Walker Bros., Ltd.
Wolverhampton Steel & Iron Co., Ltd.

Sub-Group 3.—MARINE ENGINEERING.

Engineers & Shipbuilders EMPLOYERS' ASSOCIATION.

(*See* Group 3, Sub-Group 1.)

GROUP 4 – ELECTRICAL ENGINEERING

Sub-Group 1.

ELECTRICAL AND ALLIED MACHINERY.

BRITISH **Electrical** & ALLIED MANUFACTURERS' ASSOCIATION.

(*See Advertisement Section, page* **286.**)

Total Membership: 219.

Objects: By the power of co-operative action, to foster and protect the electrical and allied industries in Great Britain, particularly in the following capacities:—

(1) As a central organisation providing means for the discussion of, and speedy action on, all questions affecting the industries.

(2) As a promoter of primary, secondary and technical education, particularly by linking up

GROUP 4—ELECTRICAL ENGINEERING—SUB-GROUP 1—*continued.*

British Electrical and Allied Manufacturers' Association—*continued.*

education with industry and commerce, by the founding of scholarships, and by the active prosecution of scientific and industrial research.

(3) As a promoter of business in colonial and foreign markets.

Director and Secretary, and Offices: D. N. Dunlop, King's House, Kingsway, London, W.C.2.

Cable Address: "Perihelion, Westcent, London."

Exporting Members:

Abbott, Anderson & Abbott, Ltd.
Accumulators (Birmingham), Ltd.
Adamson, Daniel & Co., Ltd.
Allen (W. H.), Sons, & Co., Ltd.
Alley & MacLellan, Ltd.
Andrews, Cuthbert.
Arc & General Equipment, Ltd
Arma Manufacturing Co., Ltd.
Aron Electricity Meter, Ltd.
Arora Co. (The).
Ashdowns.
Ashton Frost & Co., Ltd.
Ashworth & Parker.
Associated Battery Co., Ltd.
Atlas Carbon & Battery Co., Ltd.
Barnard, J. W.
Bastian Electric Co., Ltd.
Belling & Co.
Belliss & Morcom, Ltd.
Benjamin Electric, Ltd.
Berry's Electric, Ltd.
Bever, Dorling & Co., Ltd
Bluemel Bros., Ltd.
Boothroyd (H. T.), Ltd.
Bray, Markham & Reiss, Ltd.
British Battery Co., Ltd.
British Central Electrical Co., Ltd.
British Electric Plant Co., Ltd.
British Electric Transformer Co., Ltd.
British Ever-Ready Co., Ltd.
British Insulated & Helsby Cables, Ltd.
British Thomson-Houston Co., Ltd.
Brolt, Ltd.
Broom & Wade.
Brompton & Kensington Accessories Co., Ltd.
Brook, Hirst & Co., Ltd.
Browett, Lindley & Co., Ltd.
Brush Electrical Engineering Co., Ltd.
Buckley & Taylor, Ltd.
Burnley Ironworks Co., Ltd.
Callender's Cable & Construction Co., Ltd.
Cambridge & Paul Instrument Co., Ltd.
Chamberlain & Hookham, Ltd.
Chloride Electrical Storage Co., Ltd.
Clarke, Chapman & Co., Ltd.
Clayton, Goodfellow & Co., Ltd.
Cole, Marchent & Morley, Ltd.
Concordia Electric Wire Co., Ltd.
Cossor (A. C.), Ltd.
Cox-Cavendish Electrical Co., Ltd.
Crabtree (J. A.) & Co., Ltd.
Credenda Conduits Co., Ltd.
Creed & Co., Ltd.
Crighton & Co.
Croggon & Co., Ltd.
Crompton & Co., Ltd.
Crossley Bros., Ltd.
Crypto Electrical Co., Ltd.
Curtis Manufacturing Co.
Davenport Engineering Co., Ltd.
Davey, Paxman & Co., Ltd.
Davies, Kent & Stewart.
Davy Bros., Ltd.
Day (G. St. John) (Patents), Ltd.
Dean (A. E.) & Co.
Douglas & Grant, Ltd.
Dowsing Radiant Heat Co., Ltd.
D. P. Battery Co., Ltd.
Ebonestos Manufacturing Co., Ltd.
Ecco Battery Co., Ltd.
Edison Swan Electric Co., Ltd.
Efandem Co., Ltd.
Electric Control, Ltd.
Electric & Engineering Specialties Co.
Electric & Ordnance Accessories Co., Ltd.
Electrical Apparatus Co., Ltd.
Electromotors, Ltd.
Elliott Brothers (London), Ltd.
Ellison (George).
English Electric Co., Ltd.
Erskine, Heap & Co., Ltd.
Everett, Edgcumbe & Co., Ltd.
Evershed & Vignoles, Ltd.
Ferguson, Pailin, Ltd.
Ferranti, Ltd.
Film Cooling Towers, Ltd.
Fielding & Platt, Ltd.
Fleming, Birkby & Goodall, Ltd.
Foster Instrument Co.
Fraser & Chalmers Engineering Works.
Fuller Accumulator Co., Ltd.
Fullerton, Hodgart & Barclay, Ltd.
Galloways, Ltd.
General Electric Co., Ltd.
Gent & Co., Ltd.
Glenfield & Kennedy, Ltd.
Glover (W. T.) & Co., Ltd.
Greenwood & Batley, Ltd.
Griffiths Bros. & Co. (London), Ltd.
Hart Accumulator Co., Ltd.
Hathorn, Davey & Co., Ltd.
Heatly-Gresham Engineering Co., Ltd.
Heenan & Froude, Ltd.
Henley's (W. T.) Telegraph Works Co., Ltd.
Hick, Hargreaves & Co., Ltd.
Hightensite, Ltd.
Holden & Brooke, Ltd.
Holman Bros., Ltd.
Holmes (J. H.) & Co.
Howden, James, & Co., Ltd.
Igranic Electric Co., Ltd.
Jackson Electric Stove Co., Ltd.
Jenson & Nicholson, Ltd.
Johnson & Phillips, Ltd.
Joyner (Chas.) & Co., Ltd.
Keighley Gas & Oil Engine Co., Ltd.
Lancashire Dynamo & Motor Co., Ltd.
Laurence, Scott & Co., Ltd.
Lilleshall Co., Ltd.
Liverpool Electric Cable Co., Ltd
Lucas Electrical Co., Ltd.
Lucy (W.) & Co., Ltd.
Lundberg (A. P.) & Sons.
Lyon (Arthur) & Wrench, Ltd.
Macfarlane Engineering Co., Ltd.
Mackley, (E.N.) & Co.
Marsdens' Engines, Ltd.
Mather & Platt, Ltd.
Mavor & Coulson, Ltd.
Mawdsley's, Ltd.
Medical Supply Association.

GROUP 4—ELECTRICAL ENGINEERING—SUB-GROUP 1—*continued.*

British Electrical and Allied Manufacturers' Association—*continued.*

Metropolitan-Vickers Electrical Co., Ltd.
Micanite & Insulators Co., Ltd.
Mirrlees, Bickerton & Day, Ltd.
Mirrlees Watson Co., Ltd.
Morgan Crucible Co., Ltd.
M.P. Manufacturing Co., Ltd.
Musgrave (John) & Sons (1913), Ltd
Nalder Bros. & Thompson, Ltd.
National Gas Engine Co., Ltd.
New Switch Gear Construction Co., Ltd.
Newton, Bean & Mitchell.
Newton Bros. (Derby), Ltd.
Newtons, Ltd.
"Oliver-Pell" Electric & Manufacturing Co., Ltd
Osram-Robertson Lamp Works, Ltd.
Park Royal Engineering Works, Ltd.
Parkinson (F. & A.), Ltd.
Parmiter, Hope & Sugden, Ltd.
Parsons (C. A.) & Co., Ltd.
Parsons (C. H.), Ltd.
Parsons Motor Co., Ltd.
Pearn (Frank) & Co., Ltd.
Peebles (Bruce) & Co., Ltd.
Pinchin, Johnson & Co., Ltd.
Pirelli General Cable Works, Ltd.
Pollit & Wigzell, Ltd.
Premier Accumulator Co., Ltd.
Premier Cooler and Engineering Co., Ltd.
Premier Gas Engine Co., Ltd.
Pritchett & Gold and Electrical Power Storage Co., Ltd.
Quead, Ltd.
Randall Brothers.
Reason Manufacturing Co., Ltd.
Record Electrical Co., Ltd.
Rees Roturbo Manufacturing Co., Ltd.
Reid Bros., Engineers, Ltd.
Reyrolle (A) & Co., Ltd.
Rhodes Motors, Doncaster.
Richardsons, Westgarth & Co., Ltd.
Richford & Co., Ltd.
Roberts (Wm.) & Sons, Ltd.
Robey & Co., Ltd.
Rotax Motor Accessories Co., Ltd.
Roy (W. H.) & Co.
Rushmores (1919), Ltd.
Sandycroft, Ltd.
Saxon (George), Ltd.
Scott & Hodgson, Ltd.
Shanks (Alex.) & Sons, Ltd.
Siemens Brothers & Co., Ltd.
Siemens Bros. Dynamo Works, Ltd.
Simplex Conduits, Ltd.
Slaughter (T. E.) & Co.
Small Electric Motors, Ltd.
Stott (S. S.) & Co.
Submersible Motors, Ltd.
Sunderland Forge & Engineering Co., Ltd.
Sun Electrical Co., Ltd.
Sunlight Manufacturing Co., Ltd.
Surrey Electrical Co., Ltd.
Switchgear & Cowans, Ltd.
Thomas (Bertram).
Tilghman's Patent Sand Blast Co., Ltd.
Tok Manufacturing Co., Ltd.
Trevelyan & Co.
Tucker (J. H.) & Co., Ltd.
Tudor Accumulator Co., Ltd.
Tyer & Co., Ltd.
United Brassfounders & Engineers, Ltd.
Urmson & Thompson, Ltd.
Vandervelde (L.).
Vandervell (C. A.) & Co., Ltd.
Vickers, Ltd.
Vlasto, Clark & Watson.
Vulco Dry Battery Co.
Walsall Electrical Co., Ltd.
Wandsworth Electrical Manufacturing Co., Ltd.
Ward & Goldstone.
Wardle Engineering Co., Ltd.
Watford Electric & Manufacturing Co., Ltd.
Watson & Sons (Electro-Medical), Ltd.
West, Allen, & Co., Ltd.
Westminster Engineering Co., Ltd.
Whipp & Bourne, Ltd.
Wiggin (Henry) & Co., Ltd.
Wiggins (F.) & Sons.
Wilson-Wolf Engineering Co., Ltd.
Wood Brothers.
Woodhouse & Mitchell, Ltd.
Worthington-Simpson, Ltd.
Yates & Thom, Ltd.

Electric Lamp MANUFACTURERS' ASSOCIATION OF GREAT BRITAIN, LTD.

Offices: 46, Queen Victoria Street, London, E.C. 4.

Telephone MANUFACTURERS' ASSOCIATION.

Offices: 4, Southampton Row, Kingsway, London, W.C.2.

Sub-Group 2.—CABLE MAKERS.

Cable Makers' ASSOCIATION.

(*See Advertisement Section, page* **252.**)

Total Membership: 14.

Objects: (1) To discuss and take action in regard to legislation or regulations affecting the Electrical Cable Industry in regard to the adoption of suitable standards for technical details, quality of manufactures and terms of contracts; and generally to promote the interests of the industry.

(2) To regulate the relations between the several members of the Association and their workmen in connection with wages, hours and conditions of employment, the employment of apprentices, and in connection with, and for the purpose of, preventing and settling trade disputes.

Secretary and Offices: Llewelyn B. Atkinson, M.I.E.E., A.M.Inst.,C.E., Sardinia House, Sardinia Street, London, W.C.2.

Cable Address: "Howardist" (Holb.) London.

Exporting Members:

Anchor Cable Co., Ltd. (The).
British Insulated & Helsby Cables, Ltd.
Callender's Cable & Construction Co., Ltd.
Craigpark Electric Cable Co., Ltd. (The).
Greengate & Irwell Rubber Co., Ltd. (The) (late I. Frankenburg & Sons, Ltd.).
Glover (W. T.) & Co., Ltd.
Henley's (W. T.) Telegraph Works Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd. (The).
Johnson & Phillips, Ltd.
Liverpool Electric Cable Co., Ltd.
London Electric Wire Company & Smiths, Ltd. (The).
Siemens Brothers & Co., Ltd.
St. Helens Cable & Rubber Co., Ltd.
Western Electric Co., Ltd.

GROUP 5 – IRON STEEL AND ALLIED TRADES

Sub-Group 1.

PIG IRON (Spiegel and Ferro-Manganese).—(*a*) Hematite, Ferro-Manganese and Spiegeleisen, (*b*) Basic Forge and Foundry.

RAILWAY MATERIALS, RAILS, FISH PLATES. INGOTS, PLATES, JOISTS, SECTIONS, BILLETS, BLOOMS, BARS AND WIRE RODS. —(*a*) Steel Makers, (*b*) Bar, Hoop and Wire Rod Rollers.

SHEETS.—(*a*) Galvanised Sheets and Blacksheets, (*b*) Tin, Terne and Blackplates.

TILTERS, FORGERS AND ROLLERS.

British **Joist** Makers' Association.

Offices : c/o Messrs. W. B. Peat & Co., Royal Exchange, Middlesbrough.

British **Wire Rod Rollers'** Association.

Offices : Norris Deakin Buildings, King Street, Sheffield.

Cleveland **Ironmasters'** Association.

Total Membership : 19.

Objects : Regulation of wages and conditions of labour in the Cleveland Pig Iron Trade.

Secretary and Offices : J. T Atkinson, Cleveland Buildings, Middlesbrough.

Exporting Members :

Bell Brothers, Ltd.
Bolckow, Vaughan & Co., Ltd.
Cargo Fleet Iron Co., Ltd.
Carlton Iron Co., Ltd.
Cochrane & Co., Ltd.
Consett Iron Co., Ltd.
Dorman Long & Co., Ltd.
Gjers Mills & Co., Ltd.
Linthorpe Dinsdale Smelting Co., Ltd.
North Eastern Steel Co., Ltd.
Pease & Partners, Ltd.
Palmer's Shipbuilding & Iron Co., Ltd.
Partington Steel & Iron Co., Ltd.
Samuelson (Sir B.) & Co., Ltd.
Seaton Carew Iron Co., Ltd.
Skinningrove Iron Co., Ltd.
South Durham Steel & Iron Co., Ltd.
Tees Furnace Co., Ltd.
Whitwell (W.) & Co., Ltd.

Lancashire **Bar** Manufacturers' Association.

Objects : To afford facilities for the communication and interchange of views on all matters affecting the Lancashire Wrought Iron Trade, and to take such action with regard thereto as may be considered desirable.

Secretary and Offices : H. S. Knowles, Atlantic Chambers, Brazennose Street, Manchester.

Cable Address : "Colleague," Manchester.

Lincolnshire **Ironmasters'** Association.

Total Membership : 8.

Secretary and Offices : A. Glover, Prudential Buildings, Park Row, Leeds.

Cable Address : "Justinian," Leeds.

Exporting Members :

Appleby Iron Co., Ltd.
Brown (J.) & Co., Ltd.
Frodingham Iron & Steel Co., Ltd.
Lysaght (J.), Ltd.
North Lincolnshire Iron Co.
Redbourn Hill Iron & Coal Co., Ltd.
Trent Iron Co., Ltd.

Midland **Steel Anglemakers'** Association.

Office : c/o Messrs. W. B. Peat & Co., The Royal Exchange, Middlesbrough.

National Federation of **Iron & Steel** Manufacturers.

Offices : Temple Bar House, London, E.C. 4.

North-East Coast **Barmakers'** Association.

Offices : c/o Messrs. W. B. Peat & Co., Royal Exchange, Middlesbrough.

North-East Coast **Steel** Makers' Association.

Offices : c/o Messrs. W. B. Peat & Co., Royal Exchange, Middlesbrough.

Scottish **Ironmasters'** Association.

Total Membership : 11.

Secretary and Offices : James C. Bishop, 156, St. Vincent Street, Glasgow.

Exporting Members :

Baird (Wm.) & Co., Ltd.
Carron Co.
Coltness Iron Co., Ltd.
Colville (David) & Sons, Ltd.
Dalmellington Iron Co., Ltd.
Dixon (Wm.), Ltd.
Dunlop (Jas.) & Co., Ltd.
Glasgow Iron & Steel Co., Ltd.
Langloan Iron & Chemical Co., Ltd.
Shotts Iron Co., Ltd.
Summerlee Iron Co., Ltd.

GROUP 5—IRON STEEL AND ALLIED TRADES—SUB-GROUP 1—*continued.*

Sub-Group 1—*continued.*

SCOTTISH **Steel** MAKERS' ASSOCIATION.

Total Membership : 7.

Objects : The promotion of the common Commercial interests of the Firms concerned.

Secretary and Offices : W. A Millar, Writer, 77, St. Vincent Street, Glasgow.

Cable Address : "Lycidas," Glasgow.

Exporting Members :

Beardmore (William) & Co., Ltd.
Colville (David) & Sons, Ltd.
Dunlop (James) & Co., Ltd.
Glasgow Iron & Steel Co., Ltd.
Motherwell Iron & Steel Co., Ltd.
Steel Co. of Scotland, Ltd.
Stewarts & Lloyds, Ltd.

Sheet MAKERS' CONFERENCE.

Offices : 37, Waterloo Street, Birmingham.

SHEFFIELD & DISTRICT **Rolling Mills** PROPRIETORS' ASSOCIATION.

Objects : To safeguard the common interest of the Rolling Mills Proprietors, and to provide an organisation for the Trade to deal with the collective bargaining on the part of Trades Unions.

Secretary and Offices : Walter Foulston, F.S.A.A., Norris Deakin Buildings, King Street, Sheffield.

SHEFFIELD **Forgers' & Tilters'** ASSOCIATION.

Objects : To safeguard the common interests of the Forgers and Tilters ; to provide an organisation for the Trade to deal with the collective bargaining on the part of Trades Unions.

Secretary and Offices : Walter Foulston, F.S.A.A., 15, Norris Deakin Buildings, King Street, Sheffield.

SOUTH STAFFORSHIRE **Ironmasters'** ASSOCIATION.

(*See* Group 3, Sub-Group 2.)

SOUTH WALES **Siemens Steel** ASSOCIATION.

Total Membership : 10 (representing 14 Steelworks).

Objects : To deal with Labour and Commercial matters affecting members of the Association.

Secretary and Offices : Lewis Jones, 1 & 2, Royal Metal Exchange, Swansea.

Telegraphic Address : "Ingots," Swansea.

Exporting Members :

Briton Ferry Steel Co., Ltd.
Gilbertson (W.) & Co., Ltd.
Port Talbot Steel Co., Ltd.

SOUTH YORKSHIRE **Bar Iron** ASSOCIATION.

Total Membership : 13.

Objects : Mutual intercourse and exchange of views and discussion upon matters affecting the Trade.

Secretary and Offices : M. W. Tallent, Tinsley Steel, Iron and Wire Rope Works, Sheffield.

Cable Address : "Tallent," c/o Cooke, Sheffield.

Exporting Members :

Butterley Co., Ltd.
Coghlan Steel & Iron Co., Ltd.
Cooke (William) & Co., Ltd.
Kirkstall Forge Co., Ltd.
Midland Iron Co., Ltd.
Sheepbridge Coal & Iron Co., Ltd.

Steel Ingot MAKERS' ASSOCIATION.

Total Membership : 34.

Objects : Mainly concerned in dealing with questions of wages and conditions of employment of workmen.

Secretary and Offices : John A. Gregorson, Royal Exchange, Middlesbrough.

Cable Address : "Gregorson," c/o Winpenny, Middlesbrough.

WELSH **Plate & Sheet** MANUFACTURERS' ASSOCIATION.

Offices : 25-29, Royal Metal Exchange, Swansea.

Sub-Group 2.

RAILWAY MATERIALS.—(*a*) Wheels and Axles, (*b*) Tyres and Axles, (*c*) Laminated and Coil Springs, (*d*) Rolling Stock, (*e*) Fastenings.

STEEL CASTINGS, IRON AND STEEL FORGINGS AND STAMPINGS.

IRON CASTINGS.—(*a*) Heavy Castings, (*b*) Light Castings, (*c*) Malleable Castings, (*d*) Pipes.

WIRE.—(*a*) Wire, (*b*) Wire Netting, (*c*) Wire Ropes, (*d*) Wire Weavers.

TOOL STEEL MAKERS. REFRACTORY MATERIALS, BRIGHT BAR AND COLD ROLLED STEEL.

Bright Steel Bar ASSOCIATION.

Secretary and Offices : J. C. Lacey, Messrs. Gibson & Ashford, 39, Waterloo Street, Birmingham.

BRITISH **Silica** ASSOCIATION.

Total Membership : 13.

Objects : Improvements in Manufacture and Quality and Maintenance of fair selling price.

Secretary and Offices : E. M. Bradford, 2, Worcester Place, Swansea.

Cable Address : "Silica," Swansea.

Exporting Members :

Allen (N. B.) & Co., Ltd.
Bynea Silica Co.
Grayson, Lowood & Co., Ltd.
Jenkins (J. B.) & Co.
Morriston Silica Co.
Oughtibridge Silica Co., Ltd.
Penwyllt Silica Co., Ltd.
Pickford Holland & Co.
Reddish (Gregory) & Co.
Smart (H. & H. E.).
Stephens & Co.
Templeton Silica Co., Ltd.
Thomas (R.) & Co., Ltd.
Vale of Neath Silica Co., Ltd.

GROUP 5—IRON STEEL AND ALLIED TRADES—SUB-GROUP 2—*continued.*

BRITISH **Wire Rope** MANUFACTURERS' ASSOCIATION.

Total Membership : 51.

Objects : To take action in regard to any matter which, in the opinion of the members, may affect the interests of the Wire Rope Industry, and also to co-operate or affiliate with other associations or organisations in furtherance of the objects of the Association.

Secretary and Offices : R. M. Beresford, The Guildhall, Newcastle-on-Tyne.

Cable Address : "Chairman," Newcastle-on-Tyne.

Exporting Members :

Allan, Whyte & Co., Ltd.
Barton (Wm.) & Co.
Binks Bros., Ltd.
Boro' Motor & Aero Supply.
Bowie (W. T.) & Co., Ltd.
Brown (W. B.) & Co. (Bankhall), Ltd.
Bruntons.
Bullivant & Co., Ltd.
Caledonian Wire Rope Co., Ltd.
Cooke (Wm.) Co., Ltd.
Craven & Speeding, Bros.
Crawhall (Joseph) & Sons.
Dixon & Corbitt & R. S. Newall & Co., Ltd.
Dunn & King, Ltd.
Dawson & Usher, Ltd.
Edge & Sons, Ltd.
Ellis (Edwin) & Co., Ltd.
Excelsior Wire Rope Co., Ltd.
Frew Bros. & Co.
Garnock, Bibby & Co., Ltd.
Glaholm & Robson, Ltd.
Glover Bros.
Glover (W. J.) & Co.
Govan Ropework Co., Ltd.
Haggie Bros., Ltd.
Haggie (D. H. & G), Ltd.
Haggie (R. Hood) & Son, Ltd.
Hall's Barton Ropery Co., Ltd.
Hartlepool Ropery Co., Ltd.
Hebburn Rope & Sail Works Co., Ltd.
Hopper (John I.), Ltd.
Houghton (W. D.) & Co., Ltd.
Latch & Batchelor, Ltd.
Midland Wire Cordage Co. (Davisons).
Newall (R. S.) & Son, Ltd.
Overton Bros.
Pick (W. H.) Latham & Sons.
Rylands Bros., Ltd.
Scott (F. W.).
Shaw (John), Ltd.
Sheffield Wire Rope Co., Ltd
Smith (Thos. & Wm.), Ltd.
Stephens (J.) & Son, Ltd.
Stevens (F. J.) & Co.
Thomson, Black & Co., Ltd.
Tyne Wire Rope Manufacturing Co., Ltd.
Warrington Wire Rope Works, Ltd.
Webster & Co , Ltd.
Whitecross Co., Ltd.
Wilkins Wire Rope Co., Ltd.
Wright (John & Edwin), Ltd.

Coil Spring MAKERS' ASSOCIATION.

Offices : Norris Deakin Buildings, King Street, Sheffield.

FEDERATED **Forgemasters'** ASSOCIATION.

Secretary and Offices : J. W. Percival, Cyclops Steel & Iron Works, Sheffield.

Iron & Steel Wire MANUFACTURERS' ASSOCIATION.

Total Membership : 73.

Objects : To watch over all matters affecting the interests of the Trade :—

(1) Regular consideration of wages, hours and working conditions of the Industry as a whole.

(2) The collection and regular consideration of statistics and information on all matters appertaining to the Industry.

(3) The encouragement of the study of processes and design, and of research with a view to perfecting the products of the Industry, etc.

Secretary and Offices : R.C.D. Isgar, Economic Buildings, 21, Spring Gardens, Manchester.

Cable Address : "Wenham," Manchester.

Exporting Members :

Bain (Wm.) & Co., Ltd.
Bates & Northcliffe, Ltd.
Beesley (W. T.) & Co., Ltd
Binns (J. & A.), Ltd.
Brearley (Ralph).
Bruntons, Ltd.
Crownshaw, Chapman & Co., Ltd.
Darlington Wire Mills, Ltd.
Dorman, Long & Co., Ltd.
Excelsior Wire Rope Co., Ltd.
Firth Co., Ltd.
Fox (Saml.) & Co., Ltd.
Haley (S.) & Son, Ltd.
Healey (George) & Sons.
Hirst Bros. & Sons, Ltd.
Hirst (Chas.) & Sons, Ltd.
Horsfall & Bickham, Ltd.
Johnson (Richard) & Nephew, Ltd.
Kayser, Ellison & Co., Ltd.
Lancashire Wire Co., Ltd.
Latch & Batchelor, Ltd.
Lee (Arthur) & Sons, Ltd.
Longford Wire Co., Ltd.
Ramsden Camm & Co., Ltd.
Rigby (J.) & Sons, Ltd.
Rollason (Abel) & Sons, Ltd.
Royston (James) Son & Co., Ltd.
Scott (Fred. W.).
Shipman (J.) & Co., Ltd.
Smith (Fredk.) & Co., Ltd.
Swedish Steel Rope Wire Co., Ltd.
Taylor (D. F.) & Co., Ltd.
Tyne Wire Drawing Co., Ltd.
Whitecross Co., Ltd.

LAMINATED **Railway Spring** MAKERS' ASSOCIATION.

Offices : Norris Deakin Buildings, King Street, Sheffield.

Machine Knife & ALLIED TRADES' ASSOCIATION.

Offices : Norris Deakin Buildings, King Street, Sheffield.

GROUP 5—IRON STEEL AND ALLIED TRADES—SUB-GROUP 2—*continued.*

MIDLAND **Forgemasters'** ASSOCIATION.

Offices : c/o Messrs. Moss & Gamble, Russell Street, Sheffield.

Patented Steel Rope Wire ASSOCIATION.

Total Membership : 26.

Objects : Manufacture of Steel Rope Wire.

Secretary and Offices : W. B. Peat & Co., Norris Deakin Buildings, King Street, Sheffield

Cable Address : "Veritatem," Sheffield.

Exporting Members :

Darlington Wire Mills, Ltd.
Doncaster Wire Co., Ltd.
Dorman Long & Co., Ltd.
Firth Co., Ltd.
Hill (Richard) & Co. (1899), Ltd.
Hirst (Charles) & Sons, Ltd.
Johnson & Playfair, Ltd.
Johnson (Richard) & Nephew, Ltd.
Lee (Arthur) & Sons, Ltd.
Longford Wire Co., Ltd.
Ramsden, Camm & Co., Ltd.
Rollason & Sons, Ltd.
Royston (James) Son & Co., Ltd.
Shipman (J.) & Co., Ltd.
Smith (E. & A.) & Co., Ltd.
Smith (Fredk.) & Co. (Wire Manufacturers), Ltd.
Spencer Wire Co., Ltd.
Swedish Steel Rope Wire Co., Ltd.
Wood (Thos.) & Son (Heckmondwike), Ltd.

Rail Makers' ASSOCIATION.

Offices : 11, Ironmonger Lane, London, E.C.2.

Railway Carriage & Wagon Builders' & Financiers' PARLIAMENTARY ASSOCIATION.

Offices : 11, Ironmonger Lane, London, E.C.2.

Railway Tyre & Axle MANUFACTURERS' ASSOCIATION.

Offices : Norris Deakin Buildings, King Street, Sheffield.

Railway Wheel & Axle MANUFACTURERS' ASSOCIATION.

Offices : 11, Ironmonger Lane, London, E.C.2.

SOUTH STAFFORDSHIRE **Ironmasters'** ASSOCIATION.

(*See* Group 3, Sub-Group 2.)

Steel Castings MANUFACTURERS' ASSOCIATIONS.

Offices : 61, Westgate Road, Newcastle-on-Tyne.

Wagon Repairs' ASSOCIATION.

Offices : 11, Ironmonger Lane, London, E.C.2.

Wire Netting ASSOCIATION.

Offices : 37, Waterloo Street, Birmingham.

Woven Wire ASSOCIATION.

Offices : 37, Waterloo Street, Birmingham.

Sub-Group 3.

SAWS, FILES, EDGE TOOLS, MACHINE KNIVES, AND ALLIED TRADES AND ENGINEERING TOOLS. TUBES.—(*a*) Welded, (*b*) Weldless. CHAINS, ANCHORS AND CABLES. NUTS, BOLTS, RIVETS, BRIGHT SCREWS, NAILS AND MISCELLANEOUS. HOLLOW-WARE, HARDWARE, AND METAL SMALL-WARE. DROP FORGINGS AND STAMPINGS. CUTLERY, SAFES, LOCKS AND LATCHES.

ASSOCIATION OF BRITISH **Steel Penmakers.**

Total Membership : 11.

Objects : The furtherance of the interests of the British Pen Trade and those engaged in the Industry.

Secretary and Offices : James Gallie, J.P., 29, Blair Street, Edinburgh.

Exporting Members :

Baker & Finnemore, Ltd.
Brandauer (C.) & Co., Ltd.
Gillott (J.) & Sons.
Hinks, Wells & Co.
Hughes (George W.).
Leonardt (D.) & Co.
Macniven & Cameron, Ltd.
Mitchell (John).
Mitchell (Wm.) (Pens), Ltd.
Myers (M.) & Sons, Ltd.
Perry & Co., Ltd.

BRITISH **Tube** ASSOCIATION.

Offices : 39, Waterloo Street, Birmingham.

Cast Iron Pipe ASSOCIATION.

Offices : 11, Ironmonger Lane, London, E.C.2.

ASSOCIATION OF **Drop Forgers & Stampers.**

Total Membership : 75.

Objects : The furtherance of the Drop Forging Industry.

Secretary and Offices : H. B. T. Wilde, A.C.A., 45 Newhall Street, Birmingham.

Telegraphic Address : "Examine," Birmingham.

Exporting Members :

Albion Drop Forgings Co., Ltd.
Alldays & Onions Pneumatic Engineering Co., Ltd.
Allen (John) & Sons.
Ambrose Shardlow & Co., Ltd.
Archer Stamping Co.
Armstrong (Stevens) & Son, Ltd.
Austin Motor Co., Ltd.
Bain (W.) & Co., Ltd.
Barker (J.) & Co., Ltd.
Beardmore (W.) & Co., Ltd.
Birmingham Railway Carriage & Wagon Co., Ltd.
Birmingham Small Arms Co., Ltd.
Bloxwich Lock & Stamping Co.
Brett's Stamping Co., Ltd.
Brown (J.) & Co., Ltd.
Brunswick Drop Stamping Co., Ltd.
Burton, Delingpole & Co.
Carron Co.
Clarke's Crank & Forge Co., Ltd.

GROUP 5—IRON STEEL AND ALLIED TRADES—SUB-GROUP 3—*continued.*

Association of Drop Forgers and Stampers—*continued.*

Clayton & Shuttleworth, Ltd.
Coventry Stamping Co., Ltd.
Cravens, Ltd.
Criterion Stampings, Ltd.
Derihon, Usines G.
Deritend Stamping Co., Ltd.
Dickie (J.) & Co.
Doncaster & Sons, Ltd.
Evans (J.) & Sons, Ltd.
Ever Hard Edge Tool Co.
Eyres (J. & S.), Ltd.
Carrington (J.) & Sons, Ltd.
Glasgow Stamping & Metal Co.
Golcher (John), Ltd.
Green (Richard), Ltd.
Harper, Sons & Bean, Ltd.
Head, Wrightson & Co., Ltd.
Heath (Robt.) & Low Moor, Ltd.
Heavy Stampings, Ltd.
Heenan & Froude, Ltd.
Hingley (N.) & Sons, Ltd.
Hughes-Johnson Stampings, Ltd.
Innocent (H.) & Son.
Johnson (John), Ltd.
Kirkstall Forge Co., Ltd.
Lancs. Ordnance Accessories Co., Ltd.
Laird & Son, Ltd.
Laycock, Ltd.
Massey (B. & S.), Ltd.
McLellan (P. & W.), Ltd.
McNeil (Charles), Ltd.
Metropolitan Carriage Wagon & Finance Co., Ltd.
Midland Tube & Forging Co., Ltd.
Millward & Hughes, Ltd.
Peters (G. D.) & Co., Ltd.
Platts (G. Turton) & Co., Ltd.
Potter (J. H.).
Railway Signal Co., Ltd.
Rawlins (E.) & Son.
Rolled Steel Forge Co., Ltd.
Rotherham Forge & Rolling Mills Co., Ltd.
Scottish Stamping & Engineering Co., Ltd.
Sheffield Blanks, Ltd.
Smethwick Stamping Co.
Smith (Thos.) & Sons of Saltley, Ltd.
Smith's (Thos.) Stamping Works, Ltd.
Soho Drop Forgings, Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Thornley's Stampings.
Thornton (G.) & Co.
Tildesley (G. A.) & Co.
Tyer & Co., Ltd.
Vaughan Bros.
Victoria Drop Forgings Co., Ltd.
Weldless Chains, Ltd.
Whittingham & Porter, Ltd.

Edge Tool MANUFACTURERS' ASSOCIATION.

Office: Norris Deakin Buildings, King Street, Sheffield.

File MANUFACTURERS' ASSOCIATION.

Office: Norris Deakin Buildings, King Street, Sheffield.

NATIONAL **Light Castings** ASSOCIATION.

Objects: To promote the interests of its Members as manufacturers of Light Iron Castings of all varieties and for all purposes—Rain Water Pipes and Gutters, Soil Pipes, Drain Pipes, Hot Water Pipes, Cooking Ranges and Heating Stoves, Sanitary Appliances, Baths, Builders' and General Castings. The Association's activities cover both the Home and Export Markets.

Secretaries and Offices: Wenham Bros. & Co., 37, Waterloo Street, Birmingham.

Cable Address: "Secretaries," Wenham, Birmingham."

REDDITCH & DISTRICT **Needle & Fishing Tackle** EMPLOYERS' ASSOCIATION.

(*See Advertisement Section, page* **289.**)

Total Membership: 38.

Objects: To deal with matters affecting generally the Industries indicated in the title.

Secretaries & Offices: Agar Bates Neal & Co., C.A., 110, Edmund Street, Birmingham.

Telegraphic Address: "Accounts," Birmingham.

Exporting Members:

Allcock (S.) & Co., Ltd.
Bartleet (W.) & Sons, Ltd.
Brahant Needle Co.
Bird (C. & T.).
Broadway Smallwares Co., Ltd.
Crescent Manufacturing Co., Ltd.
English (J.) & Son, Ltd.
Fletcher (C. B.) & Co.
Farr (Alfred) & Sons.
Field (Ernest).
Gould (W. W.) & Sons.
Hemming (Richard) & Son.
Harper (T.) & Sons, Ltd.
Hall (William) & Co., Ltd.
Hessin (T.) & Co.
Hollington (G.) & Sons.
Hemming (T.) & Son.
Humphries (W.) & Son.
James (Arthur).
James (John) & Sons, Ltd.
Lilley (H. N.) & Co.
Milward (H.) & Sons, Ltd.
Morriss (Alfred) & Co.
Morris & Yeomans, Ltd.
Perkins (J.) & Sons, Ltd.
Redditch Manufacturing Co.
Sandilands (J.) & Sons.
Smith (James) & Sons, Ltd.
Sealey (Edgar) & Sons.
Shrimpton (Emanuel) & Fletcher.
Smith (William) & Son.
Thomas (S.) & Sons, Ltd.
Vale (William) & Sons.
Woodfield (W.) & Sous.
Wilkes (H.) & Co., Ltd.
Willis (J.) & Son.
Willis (Alfred) & Sons.
Wright & Sons.

Saw MANUFACTURERS' ASSOCIATION.

Office: Norris Deakin Buildings, King Street, Sheffield.

SHEFFIELD **Cutlery** MANUFACTURERS' ASSOCIATION.

Office: Norris Deakin Buildings, King Street, Sheffield.

GROUP 5—IRON STEEL AND ALLIED TRADES—SUB-GROUP 3—*continued.*

Shoe Rivet MANUFACTURERS' ASSOCIATION.

Total Membership : 16.

Objects : Regulation of Prices, settlement of Labour Questions and the promotion of the best interests of the Trade.

Secretaries and Offices : J. E. Rubery & Co., 112, Edmund Street, Birmingham.

Telegraphic Address : "Scrutinize," Birmingham.

Exporting Members :

Baker (George).
Bond (J. W.) & Co., Ltd.
Capewell & Sons (Joseph).
Cooper & Sons, Ltd. (Cuthbert).
Globe Manufacturing Co.
Hall & Rice, Ltd.
Harrison & Cook.
Lowe & Brookes, Ltd.
Parkes (G. B.), Ltd.
Roberts, Lane & Co., Ltd.
Skelton (Geo.) & Son.
Tips, Limited.

Shoe Tip ASSOCIATION.

Total Membership : 14.

Objects : Regulation of Prices.

Secretaries and Offices : J. E. Rubery & Co., 112, Edmund Street, Birmingham.

Exporting Members :

Adams (W.).
Bond (J. W.) & Co., Ltd.
Dingley Sons & Cartwright.
Forrester (D. L.).
Globe Manufacturing Co.
Hancock (S.) & Sons.
Lowe & Brookes, Ltd.
Moffat Bros.
Moore & Cattell, Ltd.
Parkes (G. B.), Ltd.
Parkes (John I.), Ltd.
Ralphs (A. T.) (Leeds), Ltd.
Sherring (William).
Vulcan Manufacturing Co.

SOUTH STAFFORDSHIRE **Ironmasters'** ASSOCIATION.

(*See* Group 3, Sub-Group 2.)

Steel Nail ASSOCIATION.

Offices : 37, Waterloo Street, Birmingham.

Weldless Steel Tube ASSOCIATION.

Offices : 39, Waterloo Street, Birmingham.

GROUP 6 — TEXTILES

Sub-Group 1.

COTTON.—(*a*) Cotton Spinning, (*b*) Sewing Cotton Manufactures, (*c*) Cotton Manufacturing, (*d*) Cotton Bleaching ,(*e*) Piece Dyeing and Finishing, (*f*) Yarn Dyeing, (*g*) Printing.

BRITISH **Cotton Canvas** MANUFACTURERS' ASSOCIATION.

Objects : General, in the interests of Manufacturers of Cotton Canvas and Duck for Belting, Motor Tyres, Sail Cloth, Hose, Tents, Awnings, Motor Hoods, Shoes, etc.

Secretary and Offices : L. L. Samuels, 7, Norfolk Street, Manchester.

Cable Address : Crusoe, Manchester.

Cotton Spinners' and Manufacturers' Association,

Offices : 12, Exchange Street, Manchester.

EMPLOYERS' FEDERATION OF **Bleachers.**

Offices : 2, Cooper Street, Manchester.

EMPLOYERS' FEDERATION OF **Dyers & Finishers.**

Total Membership : 100.

Objects : To deal with all matters pertaining to questions arising out of or connected with the employment of labour in the trades of Piece Dyeing and Finishing. *Policy :* Collective action, in conjunction with the Employers' Federations of Bleachers, Yarn Bleachers and Calico Printers, in all labour and many commercial matters.

Secretary and Offices : W. A. Willson, 2, Cooper Street, Manchester.

FEDERATION OF **Calico Printers.**

Total Membership : 43.

Objects : The Federation consists exclusively of firms possessing Print Works, and its object is to promote the common interests of the trade, especially with reference to legislation and to difficulties in the general conduct of the business, such as those relating to the copying of patterns, the lengths and widths of pieces, excessive claims, etc. Its policy is to carry out the above object and generally to serve as a focussing point for the views of the Calico Printing Industry on every trade question that interests the individual member.

Secretary and Offices : J. L. Edmondson, 30, Spring Gardens, Manchester.

Members :

Astbury & Pickford, Ltd.
Barlow (S.) & Co., Ltd.
Belfield, Ltd.
Bollington Printing Co., Ltd.

GROUP 6—TEXTILES—SUB-GROUP 1—*continued.*

Federation of Calico Printers—*continued.*

Brown (J.) & Co. (Bradley Fold), Ltd.
Calico Printers' Association, Ltd.
Caulfield (J. F. & E.), Ltd.
Chadwick & Smith, Ltd.
Crompton (Benjamin F.).
Dartford Printworks, Ltd.
Dewhurst (R.) & Co., Ltd.
Drew (Alex.) & Sons, Ltd.
Ferguson Bros., Ltd.
Fletcher (Mark) & Sons, Ltd.
Glen Printing & Finishing Co., Ltd.
Haigh Dyeing Co., Ltd.
Hardcastle (James) & Co., Ltd.
Hardcastle (W.) & Co.
Heaton Mills Bleaching Co., Ltd.
Horridge & Cornall, Ltd.
Irkdale Printing Co.
Irwell Springs Printing Co., Ltd.
Kay (George) & Co., Ltd.
Lancaster (John) (Manchester), Ltd.
Langworthy Bros. & Co., Ltd.
Lee (R. K.) & Co. (of Middleton), Ltd.
Liberty & Co., Ltd.
Marsden (William).
Mycock (Wm.) & Co.
Oldpark Printworks Co., Ltd.
Pullar (Robert) & Sons, Ltd.
Ramsden Wood Printworks, Ltd.
Sackville and Swallow, Ltd.
Scott (F.) & Co., Ltd.
Stead, McAlpin & Co.
Steiner (F.) & Co., Ltd.
Swaislands' Fabric Printing Co.
Turnbull & Stockdale, Ltd.
Ulster Printworks, Ltd.
United Turkey Red Co., Ltd.
Walker (Robert) & Bros.
Welch (Thomas) & Co., Ltd.
Wicken Hall Printworks, Ltd.

FEDERATION OF **Master Cotton Spinners'** ASSOCIATIONS, LTD.

Offices: Commercial Buildings, 15, Cross Street, Manchester.

MASTER **Cotton Spinners'** ASSOCIATION (BOLTON & DISTRICT).

Offices: 22, Acresfield, Bolton.

YORKSHIRE **Dyers'** FEDERATION.

Total Membership: 16.

Objects: To watch over, protect and promote the general interest of the members.

Secretary and Offices: G. Herbert Blackburn, 5, Bank Street, Bradford.

Sub-Group 2.

WOOL, WOOLLEN AND WORSTED.—(*a*) Wool Combing, (*b*) Wool Spinning, (*c*) Wool Manufacturing, (*d*) Wool Dyeing and Finishing.

BRADFORD & DISTRICT **Manufacturers'** FEDERATION.

Total Membership: 120.

Objects: The Federation is a *syndicat de Patrons*, and represents about 80 per cent. of the whole of the Manufacturers in the Bradford trade producing Dress Goods, Worsted Fabrics, etc. Its objects are *inter alia* the protection and promotion of the interests of the Textile Industry, with particular reference to the manufacture of Fabrics.

Secretary and Offices: Henry Spencer, F.C.I.S., 21, Forster Square, Bradford.

Exporting Members:

Astrachans, Ltd.
Birbeck (George) & Co.
Birkbeck (Thos.) & Co.
Boardman & Smith.
Bottomley (S.) & Bros., Ltd.
Briggs, Pollit & Co., Ltd.
Cawthra (J.) & Co., Ltd.
Cliffe Mills Co., Ltd.
Cullen (Thos.) & Co.
Drummond (J.) & Sons, Ltd.
Empsall & Firth, Ltd.
Fison (W.) & Co., Ltd.
Gates (Ernest) & Co.
Gates (E. H.) & Co., Ltd.
Guevara, Ltd.
Halliday (John) & Sons.
Hinchcliffe & Co.
Hind (John) & Co., Ltd.
Lister & Co., Ltd.
Longbottom (H.) & Co., Ltd.
Mason (Henry) (Shipley), Ltd
Norwood Manufacturing Co.
Overend (J.) & Co.
Parkland Manufacturing Co., Ltd.
Pepper, Lee & Co., Ltd.
Priestleys, Ltd.
Priestley (F.) & Co., Ltd.
Priestley (George) & Sons, Ltd.
Priestley (T.) & Sons, Ltd.
Shackleton (Arthur).
Sutcliffe & Rawson.
Tempest & Walker.
Waddington (R.), Ltd.
Whiteley (Thos.) & Co.
Wright (A. R.) & Sons, Ltd.

BRADFORD & DISTRICT MASTER **Spinners'** ASSOCIATION.

Total Membership 96.

Objects: To watch over, protect and advance the interests of persons owning, working or interested in Worsted Spinning Concerns and other Allied Industries in Bradford and District.

Secretary and Offices: W. Arthur Turner, F.S.A.A. 20-26, King's Arcade, Bradford.

Cable Address: "Underwriter," Bradford.

FINE **Cloth** MANUFACTURERS' ASSOCIATION.

Offices: Station Street Buildings, Huddersfield.

HALIFAX & DISTRICT **Master Spinners'** FEDERATION.

Total Membership: 47.

Secretary and Offices: J. D. Simpson, C.A., Somerset House, Halifax.

GROUP 6—TEXTILES—SUB-GROUP 2—*continued.*

Halifax and District Master Spinners' Association —*continued.*

Exporting Members :

Baldwin (J. & J.) & Partners, Ltd.
Clayton, Metcalfe & Co., Ltd.
Crossley (John) & Sons, Ltd.
Earnshaw & Fletcher, Ltd.
Holdsworth (John) & Co.
Hollingrake & Clegg, Ltd.
Ladyship Spinning Co., Ltd.
Martin, Sons & Co., Ltd.
Morris (Wm.) & Sons, Ltd.
Smith, Bulmer & Co.

LEEDS & DISTRICT **Woollen & Worsted** MANUFACTURERS' ASSOCIATION.

Total Membership : 79.

Objects : To guard and promote the interests of persons owning, working, or interested in Woollen and Worsted Manufacturing concerns.

Secretary and Offices : W. J. Rowlands, 24, Bond Street, Leeds.

LEEDS **Dyers' & Finishers'** FEDERATION.

Offices : Pearl Chambers, East Parade, Leeds.

Woolcombing EMPLOYERS' FEDERATION.

Offices : 12, Market Street, Bradford.

Woollen & Worsted TRADES' FEDERATION.

Objects : The Federation is composed of twenty-one Associations of Employers in the Wool Textile Trade, with a total membership of 893 firms in the manufacturing sections of the Trade only.

Secretary and Offices : George H. Wood, F.S.S., 18, Pearl Assurance Buildings, Market Street, Bradford.

YORKSHIRE **Dyers'** FEDERATION.

(*See* Group 6, Sub-Group 1.)

Sub-Group 3.—SILK

Silk ASSOCIATION OF GREAT BRITAIN AND IRELAND (INCORPORATED).

Total Membership : 197.

Objects : (1) The promotion and maintenance of the Silk Industry of Great Britain and Ireland in all its branches.

(2) To encourage the production of Raw Silk in India, the Colonies and elsewhere.

(3) To collect and disseminate among its members useful information and statistics connected with or affecting the manufacture and commerce in Silk.

(4) To promote Technical, Commercial and Linguistic education and any necessary Parliamentary Legislation, and generally to assist in the expansion and development of the Silk Industry.

Secretary and Offices : A. B. Ball, Kingsway House, Kingsway, London, W.C.2.

Cable Address : "Silk Phone-London."

Exporting Members :

SILK SPINNERS & THROWSTERS :—

Anderson & Robertson.
Binns (Thos.) & Co.
Brearley Bros., Ltd.
Brocklehurst (J. & T.) & Sons, Ltd.
Cheetham (John) & Sons, Ltd.
Clayton, Metcalfe & Co., Ltd.
Frost (Wm.) & Sons, Ltd.
Goldschmidt (E.) & Co
Hadwen (John) & Sons, Ltd.
Heath (G. H.) & Co.
Lister & Co., Ltd.
Manks (A. W.).
Maygrove (J.) & Co.
Mitchell (T.).
Ormerod Bros., Ltd.
Reade & Co., Ltd.
Thompson & Co.
Wild (Peter) & Co., Ltd.
Wood (Thos. H.), J. P.

SILK MANUFACTURERS :—

Adams (Thos.) & Co., Ltd.
Argyll Hosiery Manufacturing Co.
Arnold (James).
Atkinson (R.) & Co.
Atwell Jenner & Co.
Avon Silk Mills Co.
Bailey, Fox & Co.
Brocklehurst (J. & T.) & Sons, Ltd.
Brown (W.), Jnr., & Co.
Buckingham (J. H.) & Co., Ltd.
Caldicott (J. & T. P.).
Caldwell, Young & Co.
Catlow (D. M.) & Co.
Chapman (S.)
Clemesha Bros. & Birch, Ltd.
Courtaulds, Ltd.
Davenport (P.).
Drey, Simpson & Co., Ltd.
Dunkerley (Joseph) & Son, Ltd.
Ford Ayrton & Co., Ltd.
Gainsborough Silk Weaving Co.
Grant (W. H.).
Green (Albert), Ltd.
Grout & Co., Ltd.
Hall (F.) & Co.
Hambleton (T. H.), Ltd.
Heathcoat (John) & Co.
Hilton (George).
Hind (A.) & Sons.
Hind (John) & Co., Ltd.
Hinde (Francis) & Sons, Ltd.
Kay (Henry) & Co., Ltd.
Kenning (G.) & Sons, Ltd.
Lever (John) & Co., Ltd.
Lister & Co., Ltd.
Milner (W.) & Co., Ltd.
Moore Eady & Murcott Goode, Ltd.
Morton Sundour Fabrics, Ltd.
Mottershead (J. & J.).
Neckwear, Ltd.
Norwich Crape Co. (1856), Ltd.
Pearsall & Co.
Pickford (W.) & Co., Ltd.
Priestleys, Ltd.
Roberts (Fras.) & Co.
Robinson & Millington.
Smale (J.) & Sons, Ltd.

GROUP 6—TEXTILES—SUB-GROUP 3—*continued.*

Silk Association—*continued.*

Stokes & Hudson, Ltd.
Sudbury Silk Weaving Co.
Swindells (John).
Thompson, Le Gros & Co.
Thorpe (Jno.) & Co. (Middleton), Ltd.
Tootal Broadhurst, Lee Co., Ltd.
Tubbs, Lewis & Co.
Vanners & Fennell Bros., Ltd.
Vavasseur & Co.
Walker Bros.
Walker (R.) & Sons, Ltd.
Walters (Stephen) & Sons, Ltd.
Ward (Anthony) & Sons.
Wardle & Davenport.
Warner & Sons.
White & Son.
Whitfield (D.) & Co., Ltd.
Whittles (Thomas), Ltd.
Woodhouse, Carter, Ltd.
Worthington (A. J.) & Co.
Wright (A. R.) & Co.

SILK DYERS & FINISHERS :—

Abraham (J.) & Bros.
Adshead & Geeson.
Bradford Dyers' Association.
Bullock & Thornhill.
Crewe (T.) & Sons, Ltd.
Eastman & Son.
Hawley (A. E.) & Co., Ltd.
Harrison (T.).
Mellor (J.) & Son.
Oldham (G. T.).
Royle Dyeing Co., Ltd.
White (J. W.) & Sons.
Wardle (J.) & Sons.
Wardle (Sir T. & A.).
Webb (Geo.).
Williams (Robt.) & Sons.

Sub-Group 4.—LACE.

FEDERATION OF **Lace & Embroidery** EMPLOYERS' ASSOCIATION.

Total Membership : 800.

Objects : To establish and advance by mutual confidence, assistance and combination the interests of all Associations in the Federation concerned in the Manufacture, Preparation, Finishing and Sale of every description of Laces, Embroideries, Nets, Curtains, or engaged in supplying machinery or material for those purposes.

To encourage the production of artistic and high-class fabrics.

To maintain honest trading and prevent underselling.

To prevent the piracy of designs and obtain improvements in the law and regulations for the registration and protection of industrial designs.

The Federation shall consist of any Employers' Associations connected with the Manufacture, Preparation, Finishing, and Sale of every description of Laces, Embroideries, Nets and Curtains, and any Employers' Association whose members are engaged in supplying machinery for or material necessary thereto, duly elected to membership as hereinafter provided.

Secretary and Offices : Gregory Meakin, Esq., Eldon Chambers, Wheeler Gate, Nottingham.

Cable Address : "Fobustry," Nottingham.

Sub-Group 5.—HOSIERY.

HINCKLEY & DISTRICT **Hosiery** MANUFACTURERS' ASSOCIATION.

Offices : Hinckley, Leicestershire.

Hosiery MANUFACTURERS' ASSOCIATION.

Total Membership : 141.

Objects : The objects of the Association are to promote the General interests of the Hosiery Trade, and to secure, as far as possible, united action on the part of Hosiery manufacturers.

Secretary and Offices : H. Purt, 3, Granby Street, Leicester.

Exporting Members :

Abell Bros., Ltd.
Adams (A. E.) & Co.
Allen & Bastick.
Bates (H.) & Co., Ltd.
Baum (Arthur), Ltd.
Beale & Herbert, Ltd.
Billson (T.) & Sons, Ltd.
Braund (Geo.), Ltd.
Broughton (J. D.) & Sons.
Broughton (A. H.) & Co.
Broughton (R.) & Co.
Bryan (E. W.).
Butler (T. M.) & Co., Ltd.
Caldwell (F.) & Co., Ltd.
Carrier (H.) & Sons, Ltd.
Clemesha Bros. & Birch, Ltd.
Cooper & Roe, Ltd.
Corah (N.) & Sons, Ltd.
Davis (S.) & Sons.
Devas, Routledge & Co., Ltd.
Dickens, Armitage & Co., Ltd.
Dixon & Moore.
Ellis (F.) & Co.
Ellis (F. & J.).
Foister (Arthur).
Gamble (James) & Co.
Glover (J. G.) & Co.
Goddard & Smith.
Haines (John) & Co.
Hall & Earl.
Hames Bros
Hanford & Miller.
Harrison & Hayes.
Hearth (J.) & Co.
Hodgkinson & Gillbrand, Ltd.
How (T. F.) & Son.
How (S.) & Son.
Howe (W. & H.).
Humphreys & Sons, Ltd.
Johnson & Barnes, Ltd.
Kemp (Arthur).
Lamb & Lee, Ltd.
Leeson (J.) & Co.
Moore, Eady & Murcott Goode, Ltd.
Morley (J. L.) (Leicester), Ltd.

GROUP 6—TEXTILES—SUB-GROUP 5—*continued.*

Hosiery Manufacturers' Association—*continued.*

Morley (T.) & Son.
Myhill (R. W.) & Co.
Orton & Gilbert.
Padmore (George).
Parker (F.) & Co.
Partridge (J.) & Son.
Pegg (Charles) & Co., Ltd.
Pegg (W. & J.).
Pick (J.) & Sons.
Plant (H. W.) & Co., Ltd.
Pool, Lorrimer & Tabberer.
Raven (W.) & Co., Ltd.
Rowley (R.) & Co., Ltd.
Rudkin, Laundon, & Co, Ltd..
Russell (B.) & Sons.
Salmon & Welch, Ltd.
Skevington (W. P.).
Smith (Chas.) & Bros.
Smith Samson.
Spencer (John) & Sons.
St. Martin's Underwear Co.
Tarratt (F. & E.).
Thomas & Hart, Ltd.
Thornton & Mawby, Ltd.
Toller & Lankester.
Tompkin (H.) & Co.
Toone & Wells, Ltd.
Turner & Jarvis, Ltd.
V. L. C. Hosiery Co.
Walker Sons & Tyler, Ltd.
Walker (Wm.) & Sons, (Hosiers), Ltd.
Wills & Hutchinson.
Woodford & Wormleighton.
Wooding & Teasdale.
Yates (Alfred) & Co.
Yates (A. S.).

LOUGHBOROUGH & DISTRICT **Hosiery** MANUFACTURERS' ASSOCIATION.

Total Membership : 16.

Objects : The discussion of all matters of interest in the Hosiery Trade.

Secretaries and Offices : Hopps & Bankart, 3, Market Place, Loughborough.

Exporting Members :

Caldwell (F.) & Co., Ltd.
Cartwright & Warners, Ltd.
Godkin (H. E.) & Co., Ltd.
Hanford & Miller, Ltd.
Johnson & Son.
Lacey, Woolley & Co., Ltd.
Lowe & Sons.
Nottingham Manufacturing Co., Ltd.
Shepshed Hosiery Co., Ltd.
Towle & Co.

MIDLAND MASTER **Hosiery,** BLEACHERS', DYERS' & FINISHERS' FEDERATION.

Offices : Armitage Buildings, Victoria Street, Nottingham.

Sub-Group 6.—JUTE, FLAX AND HEMP.

ASSOCIATION OF **Jute Spinners** & MANUFACTURERS.

Total Membership : 50.

Objects : To promote, maintain, and safeguard the interests of Employers in the Jute Industry.

Secretary and Offices : Frank S. Cathro, 1, Royal Exchange Place, Dundee.

Telegraphic Address : "Employers, Dundee."

Exporting Members :

Bell (Thos.) & Sons (Dundee), Ltd.
Buist Spinning Co., Ltd.
Caird (Dundee), Ltd.
Cleghorn (Wm.), Ltd.
Cox Bros., Ltd.
Don Bros., Buist & Co., Ltd.
Duffus (J. C.) & Nephew.
Fleming (D. H.) Sons & Co., Ltd.
Grant (W. G.) & Co., Ltd.
Grimond (J. & A. D.), Ltd.
Hardie & Smith, Ltd.
Hill (M. & C.), Ltd.
Low & Bonar, Ltd.
M'Master (D.) & Co.
Malcolm, Ogilvie & Co., Ltd.
Mathewson (A. P.) & Co.
Moncur (Alex.) & Son.
Nairn (Wm.).
Paterson (Jas.) & Co.
Prain (Jas.) & Sons, Ltd.
Scott (James) & Sons, Ltd.
Sea Braes Mills, Ltd.
Spalding & Valentine, Ltd.
Stevenson (Geo.) & Co., Ltd.
Taylor (Andrew) & Co.
Thomson, Shepherd & Co., Ltd.
Victoria Spinning Co., Ltd.
Walker (Harry) & Sons, Ltd.

Bleachers' & Finishers' ASSOCIATION.

Total Membership : 32.

Objects : The promotion and protection of the interests of Irish and Scottish Linen Bleachers.

Secretaries and Offices : Stewart Blacker Quin, 25, Wellington Place, Belfast ; Wm. Elgin, 3, Albyn Place, Edinburgh.

Cable Addresses : "Charter, Belfast." "Chiene, Edinburgh."

EMPLOYERS' FEDERATION OF **Bleachers.**

(*See* Group 6, Sub-Group 1.)

Hemp & Tow SPINNERS' ASSOCIATION.

Total Membership : 11.

Objects : Generally to safeguard Spinners and regulate prices against foreign production.

Secretary and Offices : W. S. Sykes, 17, York Place, Leeds.

Cable Address : "Sykes, Leeds."

Exporting Members :

Atkinson (F.).
Belfast Ropeworks Co., Ltd.
Crossley (J.) Sons, Ltd.
Gill (T.) & Sons.
Hanson, Scott & Co., Ltd.
Jameson & Co., Ltd.
Smith (W.) & Co., Ltd.
Stephens Bros. & Martin.
Todd (J.) & Sons, Ltd.
Waites, Sons, & Atkinson, Ltd.
Wright (J. & E.), Ltd.

GROUP 6—TEXTILES—SUB-GROUP 6—*continued.*

SCOTTISH **Flaxspinners'** & MANUFACTURERS' ASSOCIATION.

Total Membership : 58.

Objects : The objects of the above Association, as defined in its Constitution, are to promote, maintain, adjust and safeguard the interests of the Flax Trade in Scotland.

Secretaries and Offices : J. & H. Pattullo and Donald, Solicitors, 1, Bank Street, Dundee.

Telegraphic Address : "Semper, Dundee."

Exporting Members :

Anderson & Chalmers.
Balfour & Cumming.
Baxter Bros. & Co., Ltd.
Beveridge (D.) & Sons, Ltd.
Blebo Spinning Co.
Boase Spinning Co., Ltd.
Burness (John S.).
Corsar Bros.
Corsar (David) & Sons, Ltd.
Donald Bros.
Don Bros., Buist & Co., Ltd.
Duke (D. & R.)
East Mill Co., Ltd.
Edinburgh Roperie & Sailcloth Co., Ltd
Fergus (John) & Co.
Fraser (Douglas) & Sons, Ltd.
Gourock Ropework Co., Ltd.
Grieg (Peter) & Co.
Hayward (Richard) & Co., Ltd.
Hayward (Richard) & Sons, Ltd.
Hendry (J. & W.).
Honeyman (John) & Co.
Jackson (Charles) & Sons, Ltd.
Jeffrey (John) & Co.
Lamb & Scott.
Lambert (James) & Co., Ltd.
Leadbetter Bros. & Co.
Lockleven Linen Co.
Lockhart (N. & N.).
Lockhart (N.) & Sons.
Lowe (David) & Co.
Lowson (Andrew), Ltd.
Lumsden (W.) & Son.
MacLaren (Thos.) & Sons.
Mitchell (Andrew) & Co., Ltd.
Nicoll (A.) & Co.
Normand (James) & Sons, Ltd.
Paton (J. & G.), Ltd.
Peter (Wm.) & Co., Ltd.
Port-Glasgow & Newark Sailcloth Co., Ltd.
Proctor (D.) & Sons, Ltd.
Richards, Ltd.
Smart (J. & J.).
Smith (David) & Sons.
South Mills, Ltd.
Stenhouse (D. M.), Ltd.
Stocks (Robert) & Co.
Strathmore Linen Co., Ltd.
Taylor (Thos.) & Co.
Thompson (A. N.).
Thompson (M. C.) & Co.
Thompson (Thomas).
Thompson (Wm.) & Son.
Webster Bros. & Co.
Webster (David) & Son.
Webster (Francis) & Sons.
Westwater (Andrew) & Co.

Sub-Group 7.

MIXED FABRICS (INCLUDING MECHANICAL CLOTH).

BRADFORD & DISTRICT **Manufacturers'** FEDERATIONS.

(*See* Group 6, Sub-Group 2.)

EMPLOYERS' FEDERATION OF **Bleachers.**

(*See* Group 6, Sub-Group 1.)

LANCASHIRE MECHANICAL **Cloth** MANUFACTURERS' ASSOCIATION, LTD.

Secretary and Offices : T. Wilson, Helmshore, Nr. Manchester.

Exporting Members :

Andrew (E. W.).
Barlow (Thomas) & Sons, Ltd.
Hardman (Thomas) & Sons, Ltd.
Hyde (Robt.) & Co., Ltd.
Kenyon (James) & Sons, Ltd.
Kershaw (Hugh) & Sons, Ltd.
Porritts & Spencer, Ltd.
Shaw (Hugh).
Wike (G. E. & W.), Ltd.
Whitehead (R. R.) & Bros., Ltd.

Moquette MANUFACTURERS' ASSOCIATION.

Total Membership : 4.

Secretary and Offices : Edgar Turrall, 28, King Street, Coventry.

Exporting Members :

Dalton, Barton & Co., Ltd.
Perkins (J.) & Sons (1909), Ltd.
Holdsworth (John) & Co.
Wood (John, A.), Ltd.

Sub-Group 8.—TEXTILE ACCESSORIES.

Bobbin MANUFACTURERS' ASSOCIATION.

Total Membership : 14.

Secretary and Offices : L. D. Kidson, F.C.A., 1, Booth Street, Manchester.

Exporting Members :

Blackburn Bobbin Co., Ltd.
British Northrop Loom Co., Ltd.
Clayton (C. & J.), Ltd.
Coward, Philipson & Co.
Dixon (John) & Sons.
Hall (John) Bobbin Co.
Heginbottom Bros.
Kirk & Co. (Blackburn), Ltd.
Livesey (S.) (Irvin & Sellers, Ltd.).
Marston & Co., Ltd.
Pioneer Bobbin Co., Ltd.
Thorpe Johnson & Co., Ltd.
Wilson Bros. Bobbin Co., Ltd.
Wilson & Co. (Barnsley), Ltd.

GROUP 6—TEXTILES—SUB-GROUP 8—*continued.*

EMPLOYERS' FEDERATION OF **Bleachers.**

(*See* Group 6, Sub-Group 1.)

EMPLOYERS' FEDERATION OF **Card Clothing** MANUFACTURERS.

President : James Arrowsmith, Esq.

Total Membership : 18.

Objects : To promote the interests of the Members generally, and for mutual support and co-operation, and to watch over legislative measures which may affect the interest of the Trade, and to deal with questions of Wages, etc.

Secretary and Offices : W. Crossley, Cromwell Buildings, Blackfriars Street, Manchester.

Exporting Members :

Ashworth (E.).
Bentley (C. R.).
Briggs (T.).
Cain, Son & Greenwood.
Critchley, Sharp & Tetlow, Ltd.
Darnley (C.) & Co.
Duckworth (A.) & Sons, Ltd.
Haley (S.) & Son, Ltd.
Highley (H.) & Sons.
Horsfall & Bickham, Ltd.
Law (S.) & Sons.
Lister (J.) & Sons, Ltd.
Rawlings (S.) & Sons, Ltd.
Sykes (J.) Bros.
Taylor (J.) & Sons.
Watson Bros.
Whiteley (J.) & Sons.
Wilson & Ingham.

Sub-Group 9.

CARPETS, LINOLEUM AND FLOORCLOTH.

Axminster, Jacquard & Chenille ASSOCIATION.

Total Membership : 7.

Objects : To establish friendly intercourse among the Members, the adoption of standard qualities and prices of Carpets, and the consideration of matters generally connected with the trade.

Secretary and Offices : Thos. F. Ivens, Bank Buildings, Kidderminster.

Telegraphic Address : "Practice," Kidderminster.

Exporting Members :

Carpet Manufacturing Co., Ltd.
Crossley (John) & Sons, Ltd.
Lyle (John) & Co., Ltd.
Southwell (H. & M.), Ltd.
Templeton (Jas.) & Co.
Tomkinson & Adam.
Woodward Grosvenor & Co., Ltd.

Linoleum & Floor Cloth MANUFACTURERS' ASSOCIATION.

Total Membership : 10.

Hon. Secretary : Wm. Black, Kirkcaldy, Fife, N.B.

Exporting Members :

Barry Ostlere & Shepherd, Ltd.
Corticine Floor Covering Co., Ltd.
Dundee Floorcloth & Linoleum Co., Ltd.
Fife Linoleum Co., Ltd.
Greenwich Inlaid Linoleum Co., Ltd.
Hare (John) & Co.
Linoleum Manufacturing Co., Ltd.
Nairn (Michael) & Co., Ltd.
Rylands & Sons, Ltd.
Sykes, Miles & Son, Ltd

THE **Tapestry Carpet** MANUFACTURERS' ASSOCIATION OF GREAT BRITAIN.

Total Membership : 6.

Objects : To deal with matters affecting the general welfare of the Tapestry Carpet Trade.

Secretary and Offices : S. S. Tillotson, 40A, Alexandra Road, St. John's Wood, London, N.W.8.

Exporting Members :

Bright (John) & Bros., Ltd.
Crossley (John) & Sons, Ltd.
Firth (T. F.) & Sons, Ltd.
Stoddard (A. F.) & Co., Ltd.
Victoria Carpet Co.
Widnell (Henry) & Stewart, Ltd.

Sub-Group 10.

CLOTHING (MEN AND WOMEN).

BRITISH **Corset** MANUFACTURERS' ASSOCIATION.

Total Membership : 35.

Objects : To promote the interests of British Corset Manufacturers and incidentally to afford any information to Foreign Buyers.

Secretary and Offices : C. J. Healy, 11-12, Pall Mall, London, S.W.1.

Exporting Members :

Allen (R. C.).
Bayer (Chas.) & Co., Ltd.
Blair (J. S.) & Son.
Brown (Walter W.).
Champness (Wm.) & Sons.
Chappell Allen & Co., Ltd.
Chilcot & Williams.
Clarke (F. G.), Ltd.
Cooper (R.) & Co. (Ashbourne), Ltd.
Corner (William).
Drew, Son, & Butcher, Ltd.
Fletcher (Wm.), Junr.
Leetham (Chas.) & Co.
Longdon & Co., Ltd.
Pretty (Wm.) & Sons, Ltd.
Reddell (W. T.).
Rylands & Son, Ltd
Russell (C. J.) & Son, Ltd.
Spirella Co.
Symington (R. & W. H.) & Co., Ltd.
Thomson (W. S.) & Co., Ltd.
Waterhouse Reynolds & Co.
Weingarten Bros., Ltd.
Williams (D.) & Co.
Young & Neilson.

GROUP 7 — GLASS AND CLAY PRODUCTS

Sub-Group 1.

GLASS.—(*a*) Table and Decorative Glass, (*b*) Plate and Window Glass, (*c*) Optical Glass, (*d*) Chemical, Scientific and Heat-resisting Glass, (*e*) Electrical Lamp Bulbs, (*f*) Pressed Glass Ware, (*g*) Common Glass Bottles, (*h*) Flint Glass Bottles.

Association of Glass Bottle Manufacturers of Great Britain and Ireland.

Total Membership : 35.

Objects : To procure and distribute among the Members information as to the state of the Glass Bottle Trade, and to regulate the method of carrying on business, and to take such other steps as may be deemed desirable in the interests of the Trade.

Secretary and Offices : E. V. Williamson, 10, East Parade, Leeds.

Cable Address : "Scrip," Leeds.

Exporting Members :

Ayres Quay Bottle Co., Ltd.
Bagley & Co., Ltd.
Barron (Thos.) & Co., Ltd.
British Glass Industries, Ltd.
Brooke (W.) (Leeds), Ltd.
Burdin & Co., Ltd.
Caledonian Bottle Works, Ltd.
City Glass Bottle Co., Ltd.
Cooper (Richard) & Co., Ltd.
Dale Brown & Co., Ltd.
Dobson & Nall, Ltd.
Jackson Bros., Ltd.
Kilner Bros., Ltd.
Kilner (J.) & Sons, Ltd.
King (W.).
Paul (R.).
Redfearn Bros., Ltd.
Ringsend Bros., Ltd.
Rylands Glass & Engineering Co., Ltd.
South Wales Glass Co., Ltd.
United Glass Bottle Manufacturers, Ltd.
Waddington (P.) & Sons.
Woods Bottle Works, Ltd.
Wright (D.) & Co., Ltd.

British Chemical Ware Manufacturers' Association, Limited.

Total Membership : 18.

Objects : To promote the consideration and discussion of all questions affecting, and generally to watch over, protect and advance, the interests of the trade of manufacturers of glassware, porcelain and other ancillary and allied articles, used for laboratory, chemical, physical, medical, or other similar purposes.

To promote economy, efficiency and excellence in the Industry, and support improvements in any laws, bye-laws or regulations affecting the Association or the members thereof, and to resist and oppose any of such, the enactment of which may seem opposed to the interest of the above Industry, and at the same time securing to the Association the benefit of the knowledge and experience of every member, and also promote research work in connection with the Industry.

To give Government Departments and public bodies and others, facilities of conferring with and ascertaining the views of persons engaged in the industry as regards matters directly or indirectly affecting the trade.

A catalogue is issued by the Association giving the various articles manufactured by the members, and any enquiry received will be immediately forwarded by the Secretary to the member who manufactures the article specified.

Secretary and Offices : Edward G. Stapleton, 51 Lincoln's Inn Fields, London, W.C.2.

Exporting Members :

Baird & Tatlock (London), Ltd.
Beatson, Clark & Co., Ltd.
Burtles, Tate, Ltd.
Doulton & Co., Ltd.
Duroglass, Ltd.
Icknield Glassworks (Oslers'), Ltd.
Johnston (R.) & Co., Ltd.
Molineaux, Webb & Co., Ltd.
Moncrieff (John), Ltd.
Powell (James) & Sons (Whitefriars), Ltd.
Robinson, Son & Co., Ltd.
Scientific Glass Co., Ltd.
Wood Bros. Glass Co., Ltd.
Worcester Royal Porcelain Co., Ltd.

British Flint Glass Manufacturers' Association.

Total Membership : About 21 Firms.

Objects : The discussion and settlement of trade matters affecting the common interests of members of the Association.

Secretary and Offices : J. Donaldson Harward, 118, High Street, Stourbridge.

Cable Address : "Harward Stourbridge, England."

Exporting Members :

Burtles, Tate, Ltd.
Davies (A. & J.) Ltd.
Fleming (J.) & Co.
Hands (T. J.) & Son, Ltd.
Icknield Glass Works (Oslers'), Ltd.
Lane (J.) & Sons, Ltd.
New English Glass Manufacturers, Ltd.
Richardson (H. G.) & Sons.
Stevens & Williams, Ltd.
Stuart & Sons, Ltd.
Webb (Thomas) & Corbett, Ltd.
Webb (Thos.) & Sons, Ltd.

GROUP 7—GLASS AND CLAY PRODUCTS—*continued.*

Sub-Group 2.

CLAY PRODUCTS (POTTERY).—(*a*) Earthenware, China and Porcelain, (*b*) Coarse Pottery, (*c*) Stoneware Pottery.

Gypsum ASSOCIATION.

(*See* Group 1, Sub-Group 3.)

Sub-Group 3.

CLAY PRODUCTS, BUILDING MATERIALS (INCLUDING CEMENT AND REFRACTORY FIRE CLAY).—(*a*) Bricks and Tiles (Non-Refractory, (*b*) Glazed Fireclay and Earthenware, (*c*) Sanitary Pipes.

MIDLAND **Pipe** ASSOCIATION.

Offices : 67, Wilson Street, Derby.

GROUP 8 – PRINTING, PRINTING INK MANUFACTURERS, TYPE FOUNDERS, PROCESS WORKERS & ALLIED TRADES.

Sub-Group 1.

LETTERPRESS AND LITHOGRAPHIC PRINTERS.

FEDERATION OF **Master Printers** AND ALLIED TRADES OF THE UNITED KINGDOM OF GREAT BRITAIN AND IRELAND.

Total Membership : 4,745.

Objects : To express the collective views of Master Printers on Trade questions, and generally safeguard the interests of the Printing Industry.

Secretary and Offices : A. E. Goodwin, 24, Holborn, London, E.C.1.

Cable Address : " Irrelevant," London.

Sub-Group 2.

ELECTROTYPE, STEREOTYPE MANUFACTURERS AND PROCESS WORK.

FEDERATION OF **Master Printers** AND ALLIED TRADES OF THE UNITED KINGDOM OF GREAT BRITAIN AND IRELAND.

(*See* Group 8, Sub-Group 1.)

THE **Wall Paper** MANUFACTURERS EMPLOYERS' ASSOCIATION.

Total Membership : 4.

Objects : To further the best interests of the Wallpaper Trade of Great Britain.

Secretary and Offices : John Thomas Chasney, 125, High Holborn, London, W.C.1.

Cable Address : " Outvalue, Westcent, London."

Exporting Members :

Jeffery & Co.
Shand Kydd, Ltd.
Stather (John) & Sons, Ltd.
The Wall Paper Manufacturers, Ltd.

Sub-Group 4.—PUBLISHERS' BINDERS.

FEDERATION OF **Master Printers** AND ALLIED TRADES OF THE UNITED KINGDOM OF GREAT BRITAIN AND IRELAND.

(*See* Group 8, Sub-Group 1.)

GROUP 9 – CHEMICALS, FERTILIZERS AND EXPLOSIVES

Sub-Group 1.

(*a*) Acids (including Acetic and Oxalic) ; Carbonic Acid ; Hydrogen ; Oxygen and Gases ; Alum ; Chrome ; Zinc, Copper and Iron Compounds.

(*b*) Alkalies ; Cyanides ; Chlorine and Compounds ; Silicates ; Chlorates ; Borax ; Hydrogen Peroxide ; Magnesia Compounds (not Medicinal).

(*c*) Gelatine ; Sizes ; Glue ; Varnishes ; Paints, Polishes ; Tanning Materials.

(*d*) Distillation of Coal ; Shale, Oils and Wood ; Alcohol ; Acetone ; Coal Tar Primary Products (including Ammonia and Ammonia Products) ; Benzole ; Light and Heavy Solvent Naphates ; Charcoal ; Fuels.

GROUP 9—CHEMICALS, FERTILIZERS AND EXPLOSIVES—SUB-GROUP 1—*continued.*

(*e*) Fine Chemicals—Analytical, Pharmaceutical, Photographic; Rare Earths; Synthetic Essences and Perfumes; Alcohol Derivatives; Ethers.

(*f*) Phosphorus; Manganese; Potassium, Sodium, Barium, Calcium, Cadmium, etc., Lead; Arsenic; Antimony; Tungsten; Molybednum, etc.

(*g*) Cellulose Products; Celluloid.

ASSOCIATION OF BRITISH **Chemical** MANUFACTURERS.

Total Membership: 158.

Objects: To co-ordinate and develop British Chemical Industry. To represent to the Government the views of the Industry on all matters affecting it. To keep the members of the Association informed on, and to assist them in dealing with, all questions of importance affecting the Industry.

Gen. Manager and Offices: W. J. U. Woolcock, M.P., O.B.E., 166, Piccadilly, London, W.1.

Cable Address: "Manuchem, Piccy," London

Exporting Members:

Bowdler & Bickerdike.
Bowmans (Warrington), Ltd.
Bradford Wool Extracting Co., Ltd.
British Alizarine Co., Ltd.
Burroughs, Wellcome & Co.
Butler (Wm.) & Co. (Bristol), Ltd.
Cassell Cyanide Co., Ltd.
Cooper Laboratory.
Forbes, Abbott & Lennard, Ltd.
Hopkin & Williams, Ltd.
Lankshear, Wickstead & Co., Ltd.
Liverpool Borax Co., Ltd.
London Chemical Works, Ltd.
Macfarlan (J. F.) & Co.
Phoenix Chemical Co. (1919), Ltd.
Pierson, Morrell & Co., Ltd.
Southall Bros. & Barclay, Ltd.
Stafford, Allen & Sons, Ltd.
Standard Chemical Products Co, Ltd
Thermal Syndicate, Ltd.
Western Chemical Co.

BRITISH **Tanning Extract** MANUFACTURERS' ASSOCIATION.

Total Membership: 9.

Objects: To protect the interests of British firms manufacturing Tanning Extracts.

Secretary and Offices: Harold M. McArthur, 327, Vauxhall Road, Liverpool.

Cable Address: "Tantivy," Liverpool.

Exporting Members:

Bakau Co., Ltd.
British Dyewood Co., Ltd.
Calder & Mersey Extract Co.
Day (Mark) & Sons.
Forestal Land, Timber & Railway Co., Ltd.
Island Trading Co., Ltd.
McArthur (Harold M.) & Co., Ltd.
Tannadine Co. (Borneo), Ltd.
Yorkshire Dyeware & Chemical Co., Ltd.

Corn Flour and Maize Starch Trade ASSOCIATION.

Secretary and Offices: P. F. Gilchrist, St. Mirren Starch Works, Paisley.

ELECTRIC **Detonator Fuse** TRADE ASSOCIATION.

Offices: 2, Buckingham Gate, London, S.W.1.

High Explosives TRADE ASSOCIATION.

Offices: 2, Buckingham Gate, London, S.W.1.

Safety Explosives TRADE ASSOCIATION.

Offices: 2, Buckingham Gate, London, S.W.1.

Safety Fuse TRADE ASSOCIATION.

Offices: 2, Buckingham Gate, London, S.W.1.

SOUTH WALES **Acid** ASSOCIATION.

Secretary and Offices: E. G. Smith, Briton Ferry Chemical Works, Briton Ferry, South Wales.

Sulphate of Ammonia ASSOCIATION.

Total Membership: About 600.

Objects: An Association of British Manufacturers of Sulphate of Ammonia for the sale of Sulphate of Ammonia for Home and Export Markets.

Secretary and Offices: H. Jones, 30, Grosvenor Gardens, London, S.W.1.

Cable Address: "Sulphammo," London.

UNITED KINGDOM ASSOCIATION OF **Glue** MANUFACTURERS AND ALLIED TRADES.

Total Membership: 36.

Secretary and Offices: Thomas Somerville, 31, Bermondsey Wall, London, S.E.16.

Cable Address: "Boneless, Rothun," London.

Exporting Members:

Anglo-Continental Crano Works.
Batten (James), Ltd.
Bell (Henry).
Cole (J. H. & A.).
Cockman Bros., Ltd.
Cook (Edward) & Co., Ltd.
Gallagher Bros.
Grove Chemical Co., Ltd.
Hall's Glue & Bone Works, Ltd.
Harris (T. H.) & Sons, Ltd.
Hills & Son, Ltd.
Hornett Foster & Co., Ltd.
Hunt (J. T.) & Sons, Ltd.
Johnson (Geo.) & Son.
Knight (John), Ltd.
Lockyer (Geo.) & Sons, Ltd.
Lomas Gelatine Works, Ltd.
Maloney (C. E.) & Co.
Massey (Chas.) & Son, Ltd.
Meggitt (1917), Ltd.
Morris & Griffen, Ltd.
Quibell Bros., Ltd.
Sheppy Glue & Chemical Works, Ltd.
Shirling Bros., Ltd.
Walker (J. & T.) (1917), Ltd.
Weaver Refining Co., Ltd.
Wickens, Pease & Co., Ltd.
Wiles & Lewis, Ltd.
Young (B.) & Co., Ltd.

GROUP 9—CHEMICALS, FERTILIZERS AND EXPLOSIVES—*continued.*

Sub-Group 2.
EXPLOSIVES AND DYES AND THEIR INTERMEDIARIES.

ELECTRIC **Detonator Fuse** TRADE ASSOCIATION.
(*See* Group 9, Sub-Group 1.)

High Explosives TRADE ASSOCIATION.
(*See* Group 9, Sub-Group 1.)

Safety Explosives TRADE ASSOCIATION.
(*See* Group 9, Sub-Group 1.)

Safety Fuse TRADE ASSOCIATION.
(*See* Group 9, Sub-Group 1.)

Sulphate of Ammonia ASSOCIATION.
(*See* Group 9, Sub-Group 1.)

Sub-Group 3.
FERTILISERS (INCLUDING SUPER PHOSPHATES.)

Fertiliser MANUFACTURERS' ASSOCIATION, LTD.
Total Membership : 87.
Secretary and Offices : J. King Stewart, 70, Fenchurch Street, London, E.C.3.
Cable Address : "Stewartry," London.
Codes Used : A.B.C. 5th Edn.

Exporting Members :

Cross (Alex.) & Sons, Ltd.
Cunningham (J. & J.), Ltd.
Currie, Rowlands & Co.
Daniel de Pass Trust, Ltd.
Fison (Joseph) & Co., Ltd.
Hadfield (George) & Co., Ltd.
Langdale's Chemical Manure Co., Ltd.
Odams Nitro-Phosphate & Chemical Co., Ltd.
Packard (Edward) & Co., Ltd.
Prentice Bros., Ltd.
Poynter (John), Son & Macdonalds.
Tees Refining Co., Ltd.
Tennant (Charles) & Co., of Carnoustie, Ltd.
United Alkali Co., Ltd.
Vickers (Thos.) & Sons, Ltd.
Wyllie (Daniel) & Co.

Sulphate of Ammonia ASSOCIATION.
(*See* Group 9, Sub-Group 1.)

GROUP 10 ~ FOODSTUFFS AND LIQUORS

Sub-Group 1.
CEREALS.—(*a*) Flour Milling, (*b*) Oat and Barley Milling, (*c*) Patent Cereal Foods.

Corn Flour Maize and Starch Trade ASSOCIATION.
(*See* Group 9, Sub-Group 1.)

Food MANUFACTURERS' FEDERATION.
Objects : Combination for common ends in regard to Government policy, industrial matters, etc.
Secretary and Offices : R. M. Leonard, 9, Queen Street Place, E.C.4.

Exporting Members :

Barker & Dobson, Ltd.
Barratt & Co., Ltd.
Bassett (George) & Co.
Batger & Co.
Beach (T. W.) & Sons, Ltd.
Buchanan (John) & Bros., Ltd.
Cadbury Bros., Ltd.
Caley (A. J.) & Son, Ltd.
Carsons, Ltd.
Champions Davies & Co., Ltd.
Chappel (H.) & Co.
Chivers & Sons, Ltd.
Clarke Nickolls & Coombs, Ltd.
Crosse & Blackwell, Ltd.
Epps (James) & Co., Ltd.
Faulder (Henry) & Co., Ltd.
Filshill (John), Ltd.
Fry (J. S.) & Sons, Ltd.
Fryer & Co. (Nelson), Ltd.
Fuller's, Ltd.
Gray (J.) & Co., Ltd.
Handisyde (Thomas), Ltd.
Horn (John) (Stockport), Ltd.
Horner (G. W.) & Co., Ltd.
Keiller (James) & Son, Ltd.
Mackintosh (John), Ltd.
Morton (C. & D.), Ltd.
Murray (R. S.) & Co., Ltd.
Packer (H. J.) & Co., Ltd.
Pascall (James), Ltd.
Payne (Geo.) & Co., Ltd.
Poppleton (Henry) & Sons, Ltd.
Reeves, Ltd.
Rowntree & Co., Ltd.
Robertson (James) & Sons.
Sharp (Edward) & Sons, Ltd.
Slade & Bullock, Ltd.
Southwell & Co., Ltd.
Stewart & Young.
Teasdale & Co., Ltd.
Terry (Jos.) & Sons, Ltd.
The Mazawattee Tea Co., Ltd.
Watford Manufacturing Co., Ltd.
Wilkinson (W. R.) & Co.

GROUP 10—FOODSTUFFS AND LIQUORS—SUB-GROUP 1—*continued.*

INCORPORATED NATIONAL ASSOCIATION OF BRITISH & IRISH **Millers**, LTD.

Secretary and Offices: G. H. Ball, LL.B., 40, Trinity Square, London, E.C.3.

LIVERPOOL **Rice Millers'** ASSOCIATION.

Total Membership: 3.

Objects: Development of Industry in Rice cleaned by the Home Mills for Home and Export Trade.

Hon. Secretary and Offices: H. H. Roberts, 2, The Temple, Dale Street, Liverpool.

Cable Address: "Polisher," Liverpool.

Exporting Members:

Heap (Joseph) & Sons, Ltd.
Irving, Son, & Jones, Ltd.
Twigge & Crosfield, Ltd.
Wright, Crossley & Co.

Sub-Group 2.

LIQUORS.—(*a*) Brewers, (*b*) Aerated Water Manufacturers and Bottlers, (*c*) Wines.

Brewers' SOCIETY.

Offices: Queen Anne's Chambers, Westminster, London, S.W.1.

Sub-Group 3.

CONFECTIONERY.—(*a*) Cocoa, (*b*) Chocolate Confectionery, (*c*) Sugar Confectionery, (*d*) Jam.

Food MANUFACTURERS' FEDERATION.

(*See* Group 10, Sub-Group 1.)

MANUFACTURING **Confectioners'** ALLIANCE, INCORPORATED, OF BRITISH COCOA, CHOCOLATE, SUGAR CONFECTIONERY, AND JAM MANUFACTURERS.

Total Membership: 105.

Objects: All trade matters other than industrial.

Secretary and Offices: R. M. Leonard, 9, Queen Street Place, E.C.4.

Exporting Members:

Barker & Dobson, Ltd
Bassett (Geo.) & Co.
Batger & Co., Ltd.
Beach (T. W.) & Sons, Ltd.
Cadbury Bros., Ltd.
Caley (A. J.) & Son, Ltd.
Carsons, Ltd.
Champions, Davies & Co., Ltd.
Clarke, Nicholls & Coombs, Ltd.
Crosse & Blackwell, Ltd.
Epps (James) & Co., Ltd.
Faulder (Henry) & Co., Ltd.
Fry (J. S.) & Sons, Ltd.
Fryer & Co. (Nelson), Ltd.
Fuller's, Ltd.
Gray (J.) & Co., Ltd.
Horn (John) (Stockport), Ltd.
Horner (Geo. W.) & Co., Ltd.
Keiller (Jas.) & Son, Ltd.
Mackintosh (John), Ltd.
Murray (R. S.) & Co., Ltd.
Morton (C. & E.), Ltd.
Packer (H. J.) & Co., Ltd.
Pascall (James), Ltd.
Poppleton (Henry) & Sons, Ltd.
Rowntree & Co., Ltd.
Sharp (E.) & Sons, Ltd.
Slade & Bullock, Ltd.
Southwell (Chas.) & Co., Ltd.
Stewart & Young.
Teasdale & Co., Ltd.
Terry (Joseph) & Sons, Ltd.
Watford Manufacturing Co., Ltd.
Wilkinson (W. R.) & Co.

Sub-Group 4.—VINEGAR BREWING.

UNITED **Vinegar Brewers.**

Total Membership: 16.

Secretary and Offices: A. Plowright, Tidemore Street, Battersea, London, S.W.8.

Cable Address: "Unirageniv, 'Phone, London."

Exporting Members:

Beaufoy (M.).
Bertenshaw & Turner.
Burnett (Sir R.) & Co., Ltd.
Champion & Slee, Ltd.
Fardon & Co., Ltd
Frome Vinegar Co.
Grimble Co., Ltd.
Holbrooks, Ltd.
Midland Vinegar Co., Ltd
Purnell Panter & Co., Ltd.
Standard Vinegar Co., Ltd.
Stephens (J.) Sons & Co , Ltd.
White Cottell & Co.

Sub-Group 5.—ANIMAL FOODS.

Corn Flour Maize and Starch Trade ASSOCIATION.

(*See* Group 9, Sub-Group 1.)

Sub-Group 7.—DISTILLERS.

Whisky ASSOCIATION.

Secretary and Offices: J. King Stewart, 68, Fenchurch Street, London, E.C. 3.

Sub-Group 8.—BISCUIT MANUFACTURERS.

NATIONAL ASSOCIATION OF **Biscuit** MANUFACTURERS.

Total Membership: 51.

Objects: To represent Wholesale Biscuit Manufacturers in the United Kingdom.

Secretary and Offices: James Ness, LL.B., 115, Wellington Street, Glasgow.

Telegraphic Address: "Sasines," Glasgow.

Exporting Members:

Brown (Peter) & Co.
Carr & Co., Ltd.
Crawford (William) & Sons, Ltd
Gray, Dunn & Co.
Henderson (S.) & Sons, Ltd.
Huntley & Palmers, Ltd.
Jacob (W. & R.) & Co., Ltd.
McDowell (Robert) & Sons.
Macfarlane, Lang & Co., Ltd.
McVitie & Price, Ltd.
Meredith & Drew, Ltd.
Peek Frean & Co., Ltd.
Wright (L.) & Son, Ltd.
Wyllie, Barr & Ross, Ltd.

GROUP 11—AGRICULTURE

Sulphate of Ammonia ASSOCIATION.

(*See* Group 9, Sub-Group 1.)

GROUP 12—BUILDING TRADES

Sub-Group 1.—BUILDING MATERIALS.

ASSOCIATION OF BRITISH **Roofing Felt** MANUFACTURERS, LTD.

(*See Advertisement Section, page* **292.**)

Total Membership : 10.

Objects : To encourage, advance, and watch over the interests of Felt Manufacturers in every possible way, and if necessary, to take joint action in matters affecting the common interest.

Secretary and Offices : Wm. K. Reid, 63, Fenchurch Street, London, E.C.3.

Exporting Members :

Anderson (D.) & Son, Ltd.
Briggs (W.) & Sons, Ltd.
Engert & Rolfe, Ltd.
Graves & Co., Ltd.
McNeill (F.) & Co., Ltd.
Northern Countries Asphalte Co.
Rogers (John).
Ruberoid Co., Ltd.
Vulcanite, Ltd.
W.E.F. Flat Roofing Co.

Gypsum ASSOCIATION.

(*See* Group 1, Sub-Group 3.)

Sub-Group 2.—BUILDING CONSTRUCTION.

ASSOCIATION OF BRITISH **Roofing Felt** MANUFACTURERS, LTD.

(*See* Group 12, Sub-Group 1.)

Patent Glazing CONFERENCE.

(*See* Group 3, Sub-Group 2.)

GROUP 13—RUBBER ASBESTOS LEATHER & ALLIED TRADES

Sub-Group 1.

RUBBER MANUFACTURE.—(*a*) General Rubber Trade, (*b*) Tyre Trade, (*c*) Proofing and Garment Making.

BRITISH **Rubber Tyre** MANUFACTURERS' ASSOCIATION, LTD.

Objects : The objects are to protect and advance the interests of the British Tyre Manufacturers; encourage new inventions and fresh sources of production of raw materials; and generally to obtain for its members the advantage of mutual co-operation and support.

Secretaries and Offices : W. B. Peat & Co., 11, Ironmonger Lane, London, E.C.2.

Cable Address : "Veritatem-Cent." London.

India Rubber MANUFACTURERS' ASSN., LTD.

Membership comprises practically the whole trade of the country.

Objects : To watch over the interests of Rubber Manufacturers.

Secretary and Offices : W. G. Wilson, 16, Deansgate, Manchester.

Cable Address : "Cardinal," Manchester.

A large number of members do an export business.

GROUP 13—RUBBER, ASBESTOS, LEATHER AND ALLIED TRADES—*continued.*

Sub-Group 2.
LEATHER PRODUCTION.—(*a*) Curriers and Light Leather Manufacture, (*b*) Tanning and Heavy Leather Manufacture.

FEDERATION OF **Curriers, Light Leather Tanners & Dressers** (INCORP.).

(*See Advertisement Section, page* **290.**)

Total Membership : 301.

Objects : To promote and protect the interests of the Light Leather Trades of the United Kingdom.

Secretary and Offices : Miss M. F. M. Atkinson, 9, St. Thomas's Street, London, S.E.1.

Cable Address : "Culitherta-Boroh," London.

Exporting Members :

Angus (Geo.) & Co., Ltd.
Ashton & Gaunt, Ltd.
Bayley (Thos.) & Co., Ltd.
Beebee (H.) & Co.
Bellchambers Bros.
Blake (F.) & Co.
Braybrooks (F.) & Co., Ltd.
Bridge of Weir Leather Co.
Briggs (T. N. & F. H.) (Tanners), Ltd.
British Leather Co., Ltd.
Broadhead & Conyers.
Brown & Sons (Wellingborough).
Bruce (J. A.).
Byram (H.).
Cameron (J.) & Sons.
Clark, Son, & Morland, Ltd.
Collier (Jas.) & Co., Ltd.
Connolly Bros. (Curriers), Ltd.
Conyers (J.) & Sons, Ltd.
Cozens (Michael) & Sons.
Crotty & Polsue.
Davies (Amos), Ltd.
Dean & Co., Ltd.
Dickens (J.).
Dixon Sons & Taylor.
Dunn Bros.
Evans (T. S. & D.).
Exley (J.) & Son.
Fenner (J. H.) & Co., Ltd.
Fleming, Birkby & Goodall, Ltd.
French (E. & W. C.), Ltd.
Garnar (J.) & Sons.
Geary (T. H.).
George & Co.
Gibbs (H.) & Son.
Gibson (S.) & Sons.
Gidden (W. & H.), Ltd.
Gill (Robert).
Gilling (Henry) & Sons.
Greaves (Ed.) & Sons, Ltd.
Greenwood (S.) & Sons.
Grimshaw (J. H.).
Hall (H.) & Sons, Ltd.
Hammond & Fell, Ltd.
Handford Greatrex & Co., Ltd.
Hanlon (Jas.) & Son, Ltd.
Harrison (R. D.) & Co., Ltd.
Hepburn, Gale & Ross, Ltd.
Hewit & Sons.
Hillman (J. & A.), Ltd.
Jenner (F. C.) & Co.
Lister (J. H.).
Mason (D.) & Sons, Ltd.
Mycroft (James).
Norris (S. E.) & Co.
Ogden (J. E.) & Sons, Ltd.
Parry & Jones.
Percival (J.) & Sons.
Rearden (Thos.) & Co., Ltd.
Reid (John) & Son.
Richardson (E. & J.).
Richardson (W. & J.).
Roberts (W. N.), Ltd.
Robinson (J.) & Son.
Rutteneau (W.) & Co.
Scopes & Sons, Ltd.
Sextys, Ltd.
Shaw (A. & J.), Ltd.
Smith (S.) & Sons (Colne), Ltd.
Spafford (A. E.).
Staynes & Smith.
Stead (C. F.) & Co., Ltd.
Stephens (Ira.).
Sturgess-Wells & Co., Ltd.
Taylor (John), Dunford & Co.
Tebbitt Bros.
Thackray (R.) & Sons.
Thomlinson (Wm.), Ltd.
Tullis (John) & Son, Ltd.
Turner (W. & A. J.), Ltd.
Turney Bros., Ltd.
Ward (J. F.) & Co., Ltd.
Ware Bros., Ltd.
Ware (G. S.).
Webb & Co., Ltd.

UNITED **Tanners'** FEDERATION.

(*See Advertisement Section, page* **293.**)

Total Membership : 208.

Objects : To protect the general interests of Tanners in the United Kingdom.

Secretary and Offices : M. A. Stevens, 26, St. Thomas's Street, S.E.1.

Sub-Group 3.
LEATHER GOODS MANUFACTURE.
(*a*) Saddlery and Harness Manufacture, (*b*) Boot and Shoe Manufacture, (*c*) Bags and Fancy Goods Manufacture.

FEDERATION OF **Leather Belting** MANUFACTURERS OF THE UNITED KINGDOM.

Total Membership : 109.

Secretary and Offices : L. D. Kidson, F.C.A., 1, Booth Street, Manchester.

Exporting Members :

Angus (George) & Co., Ltd.
Ashton (Thos. A.), Ltd.
Cockill (H. F.) & Sons, Ltd.
Cole (Henry A.) & Co., Ltd.
Colley (Francis) & Sons.
Combe Barbour.
Crawshaw (S.) & Sons, Ltd.
Dawson (James) & Sons, Ltd.
Fenner (J. H.) & Co.
Fleming, Birkby & Goodall, Ltd.
Foulds (I.) & Son.
Gandy Belt Manufacturing Co., Ltd.
Hallas (Elliott) & Sons, Ltd.
Hartley Bros. (Ravensthorpe), Ltd.
Hendy (James).

GROUP 13—RUBBER, ASBESTOS, LEATHER, ETC.—SUB-GROUP 3—*continued.*

Federation of Leather Belting Manufacturers of the United Kingdom—*continued.*

Hepburn, Gale & Ross, Ltd.
Hill Bros.
Hillmann (J. & A.), Ltd.
Icke (T.) & Son.
Kay & Wilkinson, Ltd.
Lewis & Taylor, Ltd.
Lindley (A.) & Sons.
Nayler (John) & Son, Ltd.
Newton Bros. & Holiday.
Nobes & Hunt.
Norris (S. E.) & Co.
Ormerod (John) & Sons, Ltd.
Ormerod (O. & W.), Ltd.
Parker (Edward).
Patent Anhydrous Leather Co., Ltd.
Prellers Leather Co.
Rawlings (S.) & Son, Ltd.
Renton Holdsworth & Co.
Rhodes (Miles), Ltd.
Sampson (George) & Son.
Southwark Manufacturing Co.
Staynes (Geo.) & Son.
Stewart & Burleigh.
Taylor (John), Dunford & Co., Ltd.
Thompson (George) & Sons, Ltd.
Thurlow (George) & Sons, Ltd.
Tuck & Co., Ltd.
Tullis (John) & Son, Ltd.
Walker (Nicholas).
Walker (William) & Sons, Ltd.
Walmsley (James) & Son.
Webb & Son (Combs), Ltd.
Wiggins, Thomas & Rudd, Ltd.
White (John) & Sons, Ltd.
Wilcock Brothers.
Wilkinson (E.) & Sons.
Willcox (W. H.) & Co., Ltd.
Yarwood (Saml.) & Son, Ltd.

INCORPORATED FEDERATED ASSOCIATIONS OF **Boot & Shoe** MANUFACTURERS OF GREAT BRITAIN AND IRELAND.

(*See Advertisement Section, page* **291.**)

Total Membership : 24 Associations, comprising 900 members.

Objects : Trade, Industrial and Labour Policy in connection with Boot and Shoe Manufacturers.

Secretary and Offices : F. J. Marquis, 7, Tavistock Square, London W.C.1.

NORTHAMPTON TOWN **Boot** MANUFACTURERS' ASSOCIATION.

Total Membership : 54.

Objects : A voluntary Association of Boot Manufacturers for the following objects :—

The general interests of Boot Manufacturers.
Maintenance of the Federation of Associations of Boot Manufacturers.
Framing statements of wages and conditions of labour.
Conciliation and arbitration as methods of settling labour disputes.
Promotion of commerce.
Education.
Benevolence.
Coalition with other Associations outside labour matters.

Secretary and Offices : G. Fredk. Lea, Corn Exchange Buildings, Northampton.

Exporting Members :

Allinson & Co.
Arnold (A. & W.).
Arnold Bros. & Co.
Allied Boot and Shoe Manufacturing Co., Ltd.
Beale & Co.
Beard Brown & Co.
Branch (James) & Sons, Ltd.
Branch (John), Ltd.
Church & Co.
Collier (Simon), Ltd.
Cook (Frederick), Ltd.
Crick & Co.
Crockett & Jones.
Dalton (J. G.).
Dawson (Jos.) & Sons.
Eales & Son.
Frisby & Co., Ltd.
Gainsford (J. H.) & Co.
Green & Son (Northampton), Ltd.
Gubbins (C. E.).
Hawkins (G. T.), Ltd.
Heritage (A. G.).
Holmes (James).
Hornby & West, Ltd.
Lee (A.).
Lewis (C. & E.).
Lotus, Ltd. (successors to F. Bostock, Ltd.).
Marks (W. J.) & Co.
Marlow (A. E.).
Marlow (John) & Sons, Ltd.
Mounts Factory Co.
Oakeshott & Finnemore.
Padmore & Barnes, Ltd.
Pollard & Son.
Read (John T.).
Richardson (Thos.).
Robinson (Jonathan).
Rush (W.) & Son.
Singlehurst (T. & Son.
Smith (Chas.), Ltd.
Stevens (W. B.) & Co.
Sutor, Ltd.
Swan (George).
Taylor (Richard) & Son.
Tebbutt (G. M.) & Son, Ltd.
Toms (W. H.).

UNITED **Tanners'** FEDERATION OF GREAT BRITAIN AND IRELAND.

(*See* Group 13, Sub-Group 2.)

Sub-Group 4.

ASBESTOS MANUFACTURE.—(*a*) Textile, etc., (*b*) Asbestos Cement (Building Materials).

Asbestos ASSOCIATION, LTD.

Total Membership : 10.

Objects : Principally to watch over, protect and advance the interests of Asbestos Manufacturers and Traders in Allied Industries within the United Kingdom.

Secretaries and Offices : Chas. W. Rooke, Deakin & Co., 2 & 3, Norfolk Street, Strand, W.C.2.

Cable Address : "Accompendo, Estrand," London.

GROUP 13—RUBBER, ASBESTOS, LEATHER, ETC.—SUB-GROUP 4—*continued.*

Asbestos Association, Ltd.—*continued.*

Exporting Members :

Bell's United Asbestos Co., Ltd.
British Everite & Asbestilite Works, Ltd.
British Fibrocement Works, Ltd.
British Uralite Co. (1908), Ltd.
Cresswells, Ltd.
Potter's Asbestos Co., Ltd.
Roberts (J. W.), Ltd.
Rochdale Asbestos Co., Ltd.
Scottish Asbestos Co., Ltd.
Turner Bros. Asbestos Co., Ltd.

Sub-Group 5.—MACHINE BELTING.

ASSOCIATION OF **Hair Belting** MANUFACTURERS.

Objects : General, in the interests of Manufacturers of Woven Hair and Cotton Machinery Belting, Conveyor Belting, etc.

Secretary and Offices : L. L. Samuels, 7, Norfolk Street, Manchester.

Cable Address : "Crusoe," Manchester.

GROUP 14 — PUBLIC UTILITY

Sub-Group 1.—ELECTRICAL UNDERTAKINGS.

BRITISH **Electrical** FEDERATION, LTD.

Total Membership : 48.

Objects : Comprises a number of Electric, Traction, Motor, Transport, Lighting, and other Companies. Formed to provide its members with officers, legal assistance and office accommodation ; to purchase stores, effect third party and other insurances, and generally to supervise and protect the interests of its members.

Secretary and Offices : P. M. Rossdale, B.A., LL.B., Electrical Federation Offices, 88, Kingsway, London, W.C.2.

Cable Address : "Tramway, Phone," London.

CONFERENCE OF DIRECTORS OF **London Electric Supply** COMPANIES.

Secretary and Offices : W. A. Pearman, 6, Eccleston Place, Belgravia, London, S.W. 1.

INCORPORATED ASSOCIATION OF **Electric Power** COMPANIES.

Offices : Caxton House, Westminster, London, S.W.1.

Provincial Electric Supply COMMITTEE OF THE UNITED KINGDOM.

Offices : Moorgate Court, Moorgate Place, London, E.C.2.

Sub-Group 2.—TRAMWAYS.

BRITISH **Electrical** FEDERATION, LTD.

(*See* Group 14, Sub-Group 1.)

Tramways & Light Railways ASSOCIATION.

Total Membership : 418.

Objects : Furtherance of Tramway Industry.

Secretary and Offices : A. de Turckheim, Caxton House, Westminster, London, S.W.1.

Telegraphic Address : "Tralitraye, Vic.," London.

(*See* Group 14, Sub-Group 2.)

Sub-Group 3.—GAS.

NATIONAL **Gas** COUNCIL OF GREAT BRITAIN AND IRELAND.

Total Membership : 608 Undertakings, representing 83·7 per cent. of the total gas made.

Objects : The National Gas Council is a representative body of Gas Undertakings in Great Britain and Ireland formed for the purpose of promoting unity of action in all matters of common interest and for fostering the development of the Industry.

Secretary and Temporary Offices : W. J. Smith, 39, Victoria Street, Westminster, London, S.W.1.

Telegraphic Address : "Natgascil, Vic." London.

Sub-Group 4.—RAILWAYS.

BRITISH **Electrical** FEDERATION, LTD.

(*See* Group 14, Sub-Group 1.)

Tramways & Light Railways' ASSOCIATION.

(*See* Group 14, Sub-Group 2.)

Sub-Group 7.—OMNIBUS UNDERTAKINGS.

BRITISH **Electrical** FEDERATION, LTD.

(*See* Group 14, Sub-Group 1.)

Sub-Group 10.—GENERAL TRANSPORT.

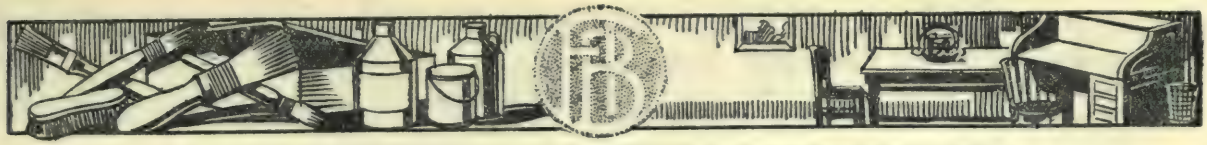
BRITISH **Electrical** FEDERATION, LTD.

(*See* Group 14, Sub-Group 1.)

INCORPORATED SWANSEA & DISTRICT **Freighters'** ASSOCIATION.

Total Membership : 102.

Secretary and Offices : J. Probert, 10, Quay Parade Swansea.



GROUP 15 – MISCELLANEOUS

Sub-Group 1.—BRUSHMAKING.

BRITISH **Brush** MANUFACTURERS' ASSOCIATION

Total Membership : 118 (including 4 Affiliated Associations whose membership is 112).

Objects : To protect and safeguard the interests of members and the Trade generally upon such matters as standardisation of weights, proper marking and description of goods; to obtain uniformity in wages and customs in the Brush Trade, and to organise, promote and deal with matters in any way affecting the interests of the Association and the Brush Trade in general.

Secretary and Offices : T. Marson Till, F.C.A., 21, Bucklersbury, London, E.C.4.

Exporting Members :

Aldrich Bros., Ltd.
Ambler, A.
Bennett (A.) & Co.
Borough Brush & Broom Works, Ltd.
Brushes, Ltd.
Canning (W.) & Co.
Chase (R.) & Son.
Crowden & Garrod, Ltd.
Goode (Thomas), Ltd.
Greenslade (E. A. & W.).
Henderson Bros. & Co.
Hull (R. E.).
Jewell (R. J.).
Jones (H. W.) & Sons.
Kent Brush Co., Ltd.
Kent (G. B.) & Sons, Ltd.
Kilmister & Co., Ltd.
Lee & James, Ltd.
Leng (C. H.) & Sons.
Ludbrook (S.) & Co., Ltd.
Marks (Alexander) & Son.
Martin (A.) & Son.
Matthew (D.) & Son, Ltd.
Mears (Thos.) & Co.
Page (S. D.) & Sons, Ltd.
Palmer (John), Ltd.
Reeves & Sons, Ltd.
Rooney (R. A.) & Sons.
Root (J.) & Son.
Sharman Bros.
Star Brush Co., Ltd.
Titterton & Howard.
Turner Son & Co.
Varian (I. S.) & Co.
Vowles (W. H.) & Sons, Ltd.
Windsor & Newton, Ltd.
Yates & Co.

Sub-Group 3.—OIL, PAINT AND VARNISH.

Boot Polish MANUFACTURERS' ASSOCIATION.

Total Membership : 27.

Objects : To promote and protect the common interests of Boot and Floor Polish Manufacturers, and to consider any rules, regulations and conditions affecting the Trade.

Secretary and Offices : R. Kettle, 5, London Wall Buildings, London, E.C.2.

Cable Address : "Kettle," c/o Deloitte, London.

Exporting Members :

Blyth & Platt, Ltd.
Brown (E.) & Son, Ltd.
Carr & Son.
Chiswick Polish Co., Ltd.
Day & Martin, Ltd.
Everett & Co.
Hargreaves Bros. & Co., Ltd.
Kiwi Polish Co. (Propy.), Ltd.
Nuggett Polish Co., Ltd.
Pickering (Joseph) & Sons, Ltd.
Ronuk, Ltd.
Stephenson Bros., Ltd.
Swift Polish Manufacturing Co.

Sub-Group 7.
JEWELLERY AND ALLIED TRADES.

BIRMINGHAM **Jewellers' & Silversmiths'** ASSOCIATION.

Total Membership : 524.

Objects : A mutual non-trading Association of Manufacturers of, and Wholesale Dealers in Jewellery, Silver and Electroplate Wares, Rolled Gold, Gilt and Imitation Jewellery, Cases, Fancy Leather and Optical and all Allied articles.

Secretary and Offices : F. H. Sanders, 27, Frederick Street, Birmingham.

Cable Address : "Protection," Birmingham.

Exporting Members :
(Provisional List.)

Adams (W.), Ltd.
Adie Bros., Ltd.
Adie (C. J.) & Nephew.
Adie & Lovekin, Ltd.
Aitken (W.).
Allday (H.) & Son, Ltd.
Allday (J.) & Son, Ltd.
Anstey & Wilson, Ltd.
Antrobus (Philip), Ltd.
Ashford (H. W.) & Co., Ltd.
Bailey (A. J.) & Son.
Baker (E.) & Son.
Banks (J. M.) & Co.
Barker Bros. Silversmiths, Ltd.
Blanckensee (S.) & Son, Ltd.
Boneham (F.) & Co.
Bowen (G.) & Sons.
Bragg (C. B.) & Co.
Bridgewater (Norman H.).
Britton (B. H.) & Sons.

GROUP 15—MISCELLANEOUS—SUB-GROUP 7—*continued.*

Birmingham Jewellers' and Silversmiths' Association—*continued.*

Burgess (Alfred) Ltd.
Caldicott (J. W.).
Chatterley (J. B.) & Sons, Ltd.
Cheshire (C. H.).
Clarke (A. C.).
Cole (F. W.).
Coley Bros.
Collins (C. H.) & Sons, Ltd.
Collins (W. H.) & Co.
Collyer (J.) & Co., Ltd.
Coulthard (W.), Ltd.
Cowlishaw (J. Y.).
Crisford & Norris, Ltd.
Davis (Montagu), & Sons.
Deakin & Francis, Ltd.
Dennison Watch Case Co., Ltd.
Devenport (W.).
Dingley (W. J.).
Durban (E.) & Co., Ltd.
Eaton & Wrighton.
Edmonds (E.)
Edmonds (G.), Ltd.
Ehrhardt (W.), Ltd.
Ellis & Co. (Birmingham), Ltd.
Emanuel (Lawrence.)
Evans (A. & E.).
Fenwick (A.), Ltd.
Fisher & Poole.
Fray (Joseph), Ltd.
Freeman (J.) & Co.
Ginder & Ginder.
Gloster (Joseph), Ltd.
Glover (J. G.) & Son.
Glover & Wiggin.
Gomm (F. R.).
Goode (John) & Sons.
Goodman (Geo.), Ltd.
Gorham Manufacturing Co.
Gourdel, Vales & Co.
Green (C.) & Son.
Griffin (J. & R.), Ltd.
Griffith (H.) & Sons.
Griffith (W.) & Sons (Birmingham), Ltd.
Harold (S.) & Co., Ltd.
Harrison & Hipwood.
Harrison (James) & Sons.
Haseler (W. H.), Ltd.
Hassett & Harper, Ltd.
Hepburn & Wilcox.
Hewitt (G. F.), Ltd.
Hirst Bros. & Co., Ltd.
Hollander (David) & Sons.
Hollis & Newman.
Hope & Co.
Horton & Allday.
Horton (Thomas).
Houlston (E. J.).
Hutton (William) & Sons, Ltd.
Hyde & Son, Ltd.
Johnson, Durban & Co., Ltd.
Johnstone (F. & A.).
Johnstone (G. H.) & Co., Ltd.
Jones (A. Edward).
Jones (R. H.) & Sons.
Jones (T. Walter).
Jones & Crompton.
Joseph (B. H.) & Co.
Kinsey Bros. & Patrick.
Lander (C. R.).
Lawrence (A. J.).
Leather (W. H.) & Sons.
Lees & Sanders.
Levi (S. J.) & Co., Ltd.
Levi (S. M.).
Levi & Salaman, Ltd.
Lincolns, Ltd.
Lister & Wright, Ltd.
Lucas (F. H.).
Mander (E.) & Son.
Manton (William).
Mason (T.) & Co.
Matthews (W. G.), Ltd.
Mitchell, Bosly & Co.
Moreton (H.).
Morton & Crowder, Ltd.
Myatt (W. J.) & Co., Ltd.
Napper & Davenport.
Nathan Bros.
Osborn (W.), Ltd.
Owen (Henry) & Sons, Ltd.
Patterson (W. E.) & Co.
Payton Pepper & Sons, Ltd.
Pellow (W. J.), Ltd.
Pepper (Arthur J.) & Co., Ltd.
Radcliffe (H.) & Co.
Reed Williams (W.) (1908), Ltd.
Rose, John.
Rotherham & Sons, Ltd.
Round (B. J.) & Sons.
Sanders (E. W.) & Co.
Saunders (W. J.), Ltd.
Scott (Adolph).
Shakespear (W. H.).
Simmons (B. R.).
Small (W. H.) & Sons.
Smith (J.) & Sons (Birmingham), Ltd.
Smith (Vincent C.).
Smith & Bartlam.
Smith & Ewen, Ltd.
Smith & Pepper.
Sothers (W. G.), Ltd.
Spiers (John) & Co.
Stagg (J. Bernard).
Stainton Bros.
Stokes & Ireland, Ltd.
Stratton & Co., Ltd.
Suckling, Ltd.
Sutton (W. J.).
Synyer & Beddoes.
Tiptaft's, Ltd.
Turner (C. E.), Ltd.
Turner & Simpson.
Vale (W.) & Sons.
Vaughton (E.).
Villers & Jackson.
Wainwright (J.).
Walker (Jos.) (Birmingham), Ltd.
Ward (R. S.) & Sons, Ltd.
Warrillow (John), Ltd.
Watson (W. A. P.), Ltd.
Westwood (G. F.) & Son.
Wheatley (R.) & Son.
Wilks (Charles).
Williams (Birmingham), Ltd.
Williamson (H.), Ltd.
Woolley (Thomas).
Wright & Hadgkiss, Ltd.
Wright & Perry.

GROUP 16—NON-FERROUS METALS

Bedstead Manufacturers' Federation.

Total Membership : 52.

Secretary and Offices : Julius Cohn, Newton Chambers, Cannon Street, Birmingham.

Cable Address : "Allied," Birmingham.

Exporting Members :

Adshead (T.) & Sons, Ltd.
Andrews (F.) & Co.
Atlas Bedstead Co., Ltd.
Barber & Sons, Ltd.
Brookes (J. & H.).
Bryant (Charles) & Sons, Ltd.
Cartwright (Charles) & Sons, Ltd.
Cross (W. A.) & Co., Ltd.
Crossbie, Marriner & Co., Ltd.
Davis (W. H.) & Co., Ltd.
Empire Bedsteads, Ltd.
Evered & Co., Ltd.
Fisher, Brown & Bayley, Ltd.
Fitter Bros.
Hooper & Edman, Ltd.
Hoskins & Sewell, Ltd.
Hoyland (John), Ltd.
Hulse (W. & A. W.).
Imperial Bedstead Co., Ltd.
Marlow (H.).
Monks, Hall & Co., Ltd.
Peyton & Peyton, Ltd.
Phillips & Son.
Phipson & Warden, Ltd.
Smith & Cartwright Bedstead Co., Ltd.
Smith (James) Bedstead Co., Ltd.
Staples & Co.
Stevens Bedstead Co., Ltd.
Taunton (J. & J.), Ltd.
Tinley Bros, Ltd.
Troman (John), Ltd.
Turner (S. F.), Ltd.
Whitfield Bedsteads, Ltd.

Association of Metallic Bedstead Manufacturers Outside the Federation.

Total Membership : 11.

Objects : The improvement and expansion of the Metallic Bedstead Industry by means of Individual effort and enterprise.

Secretary and Offices : F. C. Harman, Essington Works, Birmingham.

Cable Address : "Brierleys," Birmingham.

Exporting Members :

Brierley & Sons, Ltd.
Albert Phillips, Ltd.
Beswick (A.) & Co.

Brass & Copper Tube Association.

Offices : c/o Muntz's Metal Co., French Walls, Birmingham.

Brassfounders Employers' Association.

Total Membership : 180.

Objects : An association of Brassfounders, the objects of which are to arrange all questions of wages, deal with all demands of Trades Unions, and to undertake all matters of interest to the Trade.

Director and Offices : J. W. Madeley, J.P., 110, Edmund Street, Birmingham.

Cable Address : "Accounts," Birmingham.

Brass Wire Association.

(*See Advertisement Section, page* **288.**)

Total Membership : 25.

Objects : To promote and advance the interests of manufacturers of Brass, Phosphor Bronze and similar Wire, also Rods and Turbine Blading; to develop supply; to increase export trade, whether direct or through merchants, and for allied purposes.

Secretary and Offices : Frank Impey, 37, Newhall Street, Birmingham.

Telegraphic Address : "Drawn," Birmingham.

Exporting Members :

†Aston Chain & Hook Co., Ltd. (The).
Barker & Allen, Ltd.
Birmingham Battery & Metal Co., Ltd.
Birmingham Metal & Munitions Co., Ltd.
*†Bolton (Thomas) & Sons, Ltd.
*Clifford (Charles) & Son, Ltd.
Cooper (William) & Goode, Ltd.
Dugard Bros., Ltd.
Elliott's Metal Co., Ltd.
*Heaton & Dugard, Ltd.
Heeley Silver Rolling & Wire Mills, Ltd.
Hughes Stubbs Metal Co., Ltd.
King's Norton Metal Co., Ltd.
†Kynoch, Ltd.
Moore (W. H.) & Sons.
*Tayler (D. F.) & Co., Ltd.
*United Wire Works, Ltd.
Vivian (H. H.) & Co., Ltd.
West (William) & Sons, Ltd.
*Wilkinson (John) & Sons.
*†Wilkes (John), Sons, & Mapplebeck, Ltd.

Only Firms marked * are makers of Phosphor Bronze Wire.

Only Firms marked † are makers of Turbine Blading.

Brazed Brass Tube Association.

Total Membership : 25 (17 full Members and 8 Associated Members).

Objects : To promote, protect, and generally advance the common interests of members who manufacture Brazed Tubes in Brass, Copper, Bronze and White Metal, Tubes, Mouldings and Beadings for Gas and Electrolier, Bedstead, Ecclesiastical work, Art Metal work, and general Manufacturing purposes.

GROUP 16—NON-FERROUS METALS—*continued.*

Brazed Brass Tube Association—*continued.*

Secretary and Offices: Eric L. Heathcote, F.C.A., 13, Temple Street, Birmingham.

Cable Address: "Clarify," Birmingham.

Exporting Members:

Bayliss (William), Ltd.
Barwell (C. J. W.).
Birmingham Battery & Metal Co., Ltd.
Booth (J.) & Co. (1915), Ltd.
Clifford (C.) & Son, Ltd.
Cope, Allman & Co., Ltd.
Dobbs Bros., Ltd.
Earle, Bourne & Co., Ltd.
Evans (J.) & Co., Ltd.
Evered & Co., Ltd.
Grice, Grice & Son, Ltd.
Hudson, Edmunds & Co., Ltd.
The Mint (Birmingham), Ltd.
Roberts (A.).
Williams Bros. & Piggott, Ltd.
Winfields Rolling Mills, Ltd.
Wilkes, Sons, & Mapplebeck, Ltd.

BRITISH **Engineers'** ASSOCIATION.

(*See* Group 2, Sub-Group 5.)

Cased Tube ASSOCIATION.

Offices: 13, Temple Street, Birmingham.

Cold Rolled Brass and Copper ASSOCIATION.

(*See Advertisement Section, page* **287.**)

Total Membership: 43.

Objects: To watch over, protect and develop the common interests of makers of Cold Rolled Brass (all alloys) and Copper Sheets, Strip, Tape, etc. Not a trading corporation, but promoting the interests and aiding the activities of its individual members, and anxious to develop the Trade upon a basis of responsibility for service to customers and the business community generally.

Secretary and Offices: J. Squiers, F.C.A., Assistant Secretary, Graham Squiers, F.C.A., Director, Geo. W. Mullins, M.B.E., 115, Colmore Row, Birmingham.

Cable Address: "Squiers," Birmingham.

Exporting Members:

Barker & Allen, Ltd.
Birmingham Battery & Metal Co., Ltd. (The).
Birmingham Metal & Munitions Co., Ltd. (The).
Bolton (Thos.) & Sons. Ltd.
Booth (James) & Co. (1915), Ltd.
Clifford (Chas.) & Son, Ltd.
Cooper (Wm.) & Goode, Ltd.
Dugard Bros., Ltd.
Earle, Bourne & Co., Ltd.
Elliott's Metal Co., Ltd.
Ellis (Chas.) & Sons.
Evered & Co., Ltd.
Everitt (Allen) & Sons, Ltd.
Gibbins & Bodenham.
Heaton & Dugard, Ltd.
Hughes Stubbs Metal Co., Ltd. (The)
Kings Norton Metal Co., Ltd. (The).
Kynoch, Ltd.
Mason (B.) & Sons, Ltd.
Moore (W. H.) & Sons.
Ratcliff (Joseph) & Sons, Ltd.
Rigby (Robert).
Tayler (D. F.) & Co., Ltd.
Vivian (H. H.) & Co., Ltd.
West (Wm.) & Sons, Ltd.
Wilkes (John), Sons, & Mapplebeck, Ltd.
Wilkinson (John) & Sons (Saltley), Ltd.

High Conductivity Copper ASSOCIATION.

Offices: Egypt House, 36, New Broad Street, London, E.C.2.

MANUFACTURED **Copper** ASSOCIATION.

Offices: 37, Waterloo Street, Birmingham.

Paper Machine Wire MANUFACTURERS' ASSOCIATION.

Objects: Organization of the Manufacture of Paper Machine Wires and generally any matters affecting the interests of the Manufacturers of these goods.

Secretary and Offices: Jas. Gilchrist, 197, Broomloan Road, Govan, Glasgow.

Cable Address: "Gilchrist," "Ladywell," Glasgow.

White Lead CONVENTION.

Total Membership: 16.

Secretaries and Offices: Thomson, McLintock & Co., Bond Court House, Walbrook, London, E.C.4

Exporting Members:

Alexander, Fergusson & Co., Ltd.
Brandram Bros. & Co., Ltd.
Brimsdown Lead Co., Ltd.
Brough Lead Co., Ltd.
Cookson & Co., Ltd.
Cox Bros. & Co. (Derby), Ltd.
Farmiloe (T. & W.), Ltd.
Foster, Blackett & Wilson, Ltd.
Grace (Henry) & Co.
Hare (John) & Co.
James & Co., Ltd.
Locke, Blackett & Co., Ltd.
Locke, Lancaster & W. W. & R. Johnson & Sons, Ltd.
Mersey White Lead Co., Ltd.
Rowe Bros. & Co., Ltd.
Walkers, Parker & Co., Ltd.

GROUP 17 - OILS & FATS (INCLUDING SOAP, CANDLES & MARGARINE). OIL SEED CRUSHING AND ITS BY-PRODUCTS

Sub-Group 1.—SOAP AND GLYCERINE.

UNITED KINGDOM **Soap** MANUFACTURERS' ASSOCIATION.

Total Membership : 90.
Secretary and Offices : T. H. Sowerby, Canal Soap Works, Verney Road, London, S.E.16.
Cable Address : "Soapworks, Kent," London.

Exporting Members :

Atkinson (J. & E.), Ltd.
Bancroft & Co.
Barclay & Co.
Bentley (Thos.) & Son.
Boots Pure Drug Co., Ltd.
Bronnley (H.) & Co., Ltd.
Brooksbank (E.) & Co., Ltd.
Bulwell Soap Co.
Charles & Co., Ltd.
Cleaver (F. S.) & Sons, Ltd.
Cook (E.) & Co., Ltd.
Crawley (J. H.) & Co.
Crosfield (J.) & Sons, Ltd.
Crown Perfumery Co.
Dixon & Co.
East Lancashire Soap Co., Ltd.
Elvin Bros.
Erasmic Co., Ltd.
Ferguson, Shaw & Sons.
Finlay (A)., Ltd.
Gerard Bros., Ltd.
Gibbs (D. & W.), Ltd.
Gosnell (J.) & Co., Ltd.
Grossmith (J.) & Son, Ltd.
Harris (T. H.) & Sons, Ltd.
Hills & Sons, Ltd.
Hull Chemical Works Co.
Hull Oil Manufacturing Co., Ltd.
Jeyes' Sanitary Compounds Co., Ltd.
Knight (John), Ltd.
Lunt, Peter & Co.
Margerison (J.) & Co.
McDougall Bros., Ltd.
Ogston & Tennant, Ltd.
Peace (J. R.) & Co.
Pears (A. & F.), Ltd.
Pickering (J.) & Sons, Ltd.
Price's Patent Candle Co., Ltd.
Reid (T.) & Sons, Ltd.
Rimmel, Eugene, Ltd.
Robin & Houston, Ltd.
Rowe (T. B.) & Co., Ltd.
Sadler & Co. (Glasgow), Ltd.
Sanitas Co., Ltd.
Shaw & Co., Ltd.
Sowerby (T. & H.).
Thomas, Chris. & Bros., Ltd.
Vulcan Chemical Co., Ltd.
Wheen (R.) & Sons, Ltd.
Wilkie & Soames, Ltd.
Williamson & Simpson, Ltd.
Wright, Layman & Umney, Ltd.
Yalding Manufacturing Co., Ltd.
Yardley & Co., Ltd.
Young (J.) & Sons (Springfield), Ltd.

Sub-Group 2.—CANDLES.

Paraffin Candle MAKERS' ASSOCIATION.

Offices : 31, Threadneedle Street, London, E.C.3.

Sub-Group 3. MARGARINE AND LARD COMPOUNDS.

UNITED KINGDOM **Margarine & Edible Oil** MANUFACTURERS' ASSOCIATION.

Total Membership : 21.
Objects : To promote within the United Kingdom the interests of all Margarine and Edible Oil Manufacturers who are members of the Association ; to watch all legislation affecting the interests of members of the Association, and if necessary to promote or petition for or oppose legislation in Parliament for the furtherance of any of the objects of the Association ; to make representations to the Government in the interests of the British Margarine and Edible Oil Manufacturers.
Secretary and Offices : Harmood Banner & Son, 24, North John Street, Liverpool, and 56, Moorgate Street, London.
Cable Addresses : "Harmood," Liverpool ; "Doomrah," London.

Exporting Members :

Ballochmyle Creamery Co.
Bibby (J.) & Sons, Ltd.
British Creameries, Ltd.
British Oil & Cake Mills, Ltd.
Calders Margarine Co., Ltd.
Craigmillar Creamery Co., Ltd.
Daly (James) & Sons, Ltd.
De Bruyn, Ltd.
Dowdall's Buttapat Dairies, Ltd.
Erith Oil Works, Ltd.
Hull Oil Manufacturing Co., Ltd.
Keevil (Peter) & Son, Ltd.
Lever Bros., Ltd.
McDonnell (W.) & Co., Ltd.
Mitcham Margarine Co., Ltd.
Pellerin (Auguste).
Planters Margarine Co., Ltd.
Pure Margarine Co., Ltd.
Silcock (R.) & Sons, Ltd.
United Creameries, Ltd.
Wallace (John) & Co., Ltd.

Sub-Group 4. OIL SEED CRUSHING, REFINING BY-PRODUCTS.

UNITED KINGDOM **Margarine & Edible Oil** MANUFACTURERS' ASSOCIATION.

(*See* Group 17, Sub-Group 3.)

GROUP 18—PAPER MAKING, MANUFACTURING STATIONERY ENVELOPE MAKING, PAPER BAG MAKING, BOX MAKING AND ALLIED TRADES.

Sub-Group 1.—PAPER MAKING.

Paper MAKERS' ASSOCIATION OF GREAT BRITAIN AND IRELAND 1912 (INCORP.).

Total Membership : 180.

Objects : To promote and protect the interests of Papermakers in Great Britain and Ireland.

Secretary and Offices : Alfred W. Foster, Cornwall Buildings, 35, Queen Victoria Street, E.C.4.

Cable Address : "Qualified, Cannon," London.

Exporting Members :

Balston (W. & R.), Ltd.
Barcham Green (J.) & Son.
Brown, Stewart & Co., Ltd.
Cooke & Nuttall, Ltd.
Galloway (J.) & Co., Ltd.
Mayfield (A.) & Sons, Ltd.
Pirie (Alex.) & Sons, Ltd.
Pirie, Wyatt & Co., Ltd.
Smith, Stone & Knight, Ltd.
Tod (J.) & Son, Ltd.
Tullis, Russell & Co., Ltd.
Watson (R. & W.).
Weir (J. A.), Ltd.
Wiggins, Teape & Co., Ltd.
Wrigley (James) & Sons, Ltd.
Young, Trotter & Sons, Ltd.

Wallpaper MANUFACTURERS EMPLOYERS' ASSOCIATION.

(*See* Group 8, Sub-Group 2.)

Sub-Group 2.
MANUFACTURING STATIONERS.

FEDERATION OF **Master Printers** AND ALLIED TRADES OF THE UNITED KINGDOM OF GREAT BRITAIN AND IRELAND.

(*See* Group 8, Sub-Group 1.)

Wallpaper MANUFACTURERS EMPLOYERS' ASSOCIATION.

(*See* Group 8, Sub-Group 2.)

Sub-Group 4.—PAPER BAG MAKERS.

Wallpaper MANUFACTURERS EMPLOYERS' ASSOCIATION.

(*See* Group 8, Sub-Group 2.)

GROUP 20—WOODWORKING

Sub-Group 1.

BRITISH **BRUSH** MANUFACTURERS' ASSOCIATION.

(*See* Group 15, Sub-Group 1).

MEMBERS OF THE FEDERATION of BRITISH INDUSTRIES

Companies and Firms

THE following names and addresses refer to Companies and Firms which are direct Members of the Federation of British Industries.

It will be noted that the copious information provided facilitates correspondence either with such Members or with their Agents Overseas. When, therefore, a Member's name occurs elsewhere in this book, as, for instance, in connection with the List of Products, it is sufficient to turn to the present section to find all the details necessary for any enquiry.

The precise products and goods manufactured by these firms are indicated by the 3,000 headings given in the " List of Products " Section immediately following.

When, in addition to the information provided in these two sections, Members have made an announcement in the advertising pages, the page number is quoted immediately after their name in this list.

A

Abdulla & Co., Ltd.

MAKERS OF TOBACCO AND CIGARETTES.

Head Office : 173, New Bond Street, London, W.1. *Works :* 33-35, Union Street, 48-9, Wells Street, W., and 45, Great Eastern Street, E.C. *Cable Address :* " Abdul, London." *Codes :* A.B.C. (5th Edition).

Aberdeen Combworks Co., Ltd.

(*See Advertisement Section, page* **181.**)

MAKERS OF COMBS OF EVERY DESCRIPTION.

Head Office and Works : Aberdeen, Scotland. *Cable Address :* " Combworks, Aberdeen." *Codes :* A.B.C. (5th Edition).

AGENTS OVERSEAS :

Australia—C. Sinclair, 535, Collins St., Melbourne. **Cyprus**—B. C. Petrides, Nicosia. **Denmark**—E. H. Busch, Gjentofte, Copenhagen ; F. V. Svane, Nerre Segade 27A, Copenhagen. **Egypt**—W. A. Lancaster, Rue Toussoun, Pasha Street, No. 3, Alexandria. **France**—E. Heymann, 395, Rue de Pyrenees, Paris. **Greece**—C. Alexiadi, Rue Sofocle, 9, Athens. **Holland**—P. J. Van Steenwijk, Le Helmerstraat, 94, Amsterdam ; S. Minkenhof & Co., Nieuwendijk, 197, Amsterdam. **India**—King Bros., 33, Canning Street, Calcutta. **Italy**—A. Arditi, Corso Francia, 14, Turin. **S. Africa**—A. E. Harris, Green & Richards, New Premises, Market Street, Johannesburg. **Sweden**—Gustaf W. Jonsson, Stockholm. **Chile, Peru, Bolivia, Ecuador**—A. J. Berkeley Sutherland, Casilla 1014, Valparaiso. **Finland**—Arthur Nordberg, 19 Alexandersgatan, Helsingfors. **Palestine**—M. Sirgi & Co., Beyrouth, Syria. **Portugal**—Diago Alberto de Maceda, Rua da S. Francisco, 4-2º, Oporto. **Constantinople**—W. Middleton Edwards & Sons, Dilsiz Zade, Han, Rue Achir Effendi, Stamboul, Constantinople. **Norway**—Jens Kittelsen, Christiania. **Rumania**—A. O. Orna, 72, Finsbury Pavement, London, E.C. **Venezuela**—Gonzalez Jimenez, Avenida Sur 42, Caracas.

Abingdon Works, Ltd.

MANUFACTURING ENGINEERS.

Head Office and Works : King's Road, Tyseley, Birmingham. *Telegraphic Address :* " Abingdon, Tyseley, Birmingham." *Codes :* A.B.C. (5th Edition) and A1 Telegraphic.

AGENTS OVERSEAS.

France—Leon Rollet & Co., 64, Rue de la Folie Mericourt, Paris. **Italy**—Weiss & Stabilini, Via Settembrini 9, Milan. **Denmark**—Poul Rasmussen & Co., Norregade 7. 1. Mellenbygn, Copenhagen. **Spain**—Harry Walker, Calle Balmes 84, Barcelona. **Australia**—Cashmore & Russell, 283/5, Clarence Street, Sydney ; Bennett & Wood, Ltd., Pitt Street, Sydney.

Accles & Pollock, Limited.

MAKERS OF WELDLESS STEEL TUBING.

Head Office and Works : Oldbury, Birmingham. *Cable Address :* " Accles, Oldbury." *Codes :* A.B.C. (5th Edition) and Marconi.

AGENTS OVERSEAS :

Australasia—Kemsley & Co. (Proprietary), Limited, Fenchurch Buildings, 220, Pitt Street, Sydney ; 353, Flinders Lane, Melbourne ; 90, Lichfield Street, Christchurch. **Canada**—Associated British Industries (of Canada), Limited, Ryrie Buildings, Corner Yonge and Shuter Streets, Toronto, Ontario. **S. Africa**—Godfrey W. Volkwyn, P.O. Box 6236, Johannesburg. **Spain**—Harry Walker, Calle Balmes 84, Barcelona. **Holland**—E. S. Allsop & Co., N. Z. Voorburgwal 108, Amsterdam. **Argentina**—A. Tenhamm, Lavalle 1378, Buenos Aires.

Acetylene Corporation of Great Britain, Ltd.

(*See Advertisement Section, page* **115.**)

OXY-ACETYLENE PLANT, ACETYLENE LIGHTING, PORTABLE ACETYLENE LAMPS, STEEL TANKS AND DRUMS & GENERAL SHEET METAL WORK.

Head Office: 49, Victoria Street, London, S.W.1. *Works:* Esher Street, London, S.W.1. *Cable Address:* "Flamma Vic. London."

Acme Stopper & Box Co., Ltd.

PLAIN AND DECORATED TIN BOXES; SCREWED CAPS AND COVERS FOR BOTTLES; LEVER STOPPERS FOR PICKLE JARS, ETC. (GENERAL TINPRINTERS, STAMPERS & PIERCERS).

Head Office and Works: Ashford Street Works, Birmingham. *Cable Address:* "Bulge, Birmingham."

Acton & Borman, Limited.

EMERY, EMERY CLOTH, EMERY WHEELS, GLASS PAPER, ETC.

Head Office and Works: 51, Holloway Road, London, N.7. *Cable Address:* "Actonery." *Codes:* A.B.C. Code, (5th Edition).

Adams (George) & Sons, Limited.

IRON AND STEEL SHEETS, HOOPS AND BARS, AND GALVANISED SHEETS.

Head Office and Works: Mars Iron Works, Wolverhampton. *Cable Address:* "Adams, Wolverhampton." *Codes:* A1, A.B.C. (4th and 5th), Liebers (5 letter).

Agricultural & General Engineers, Ltd.

(*See Advertisement Section, page* **49.**)

Head Office: Central House, Kingsway, London, W.C.2. *Works:* Rochester, Peterborough, Heybridge, Stamford, Thetford, Lincoln, Leiston, Bedford, Ipswich, Colchester, Clanfield. *Cable Address:* "Agroengic, Phone, London." *Codes:* A.B.C. (5th Edition).

Aircraft Manufacturing Co., Ltd.

MAKERS OF AERONAUTICAL SUPPLIES.

Head Office: Aircraft House, 25-27, Old Queen Street, Westminster, S.W.1. *Works:* Hendon, London, N.W.9. *Cable Address*—Head Office: "Airmanship, Phone, London"; Works: "Airmanique, Phone, London." *Codes:* A.B.C. (5th Edition) and Liebers.

AGENTS OVERSEAS:

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(*See Advertisement Section, page* **108.**)

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(*See Advertisement Section, page* **241.**)

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(*See Advertisement Section, page* **73.**)

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(*See Advertisement Section, page* **96.**)

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(*See Advertisement Section, page* **110.**)

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(*See Advertisement Section, page* **14.**)

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(*See Advertisement Section, page* **83.**)

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Johannesburg—Corner of Fox & Berea Streets.

Baird (William) & Co., Ltd.

PIG IRON, COAL, COKE, BLAST FURNACE AND COAL BYE PRODUCTS, CHEMICALS, IRONSTONE, IRON ORE, LIMESTONE.

Head Office: 168, West George Street, Glasgow. *Works and Collieries:* Gartsherrie Iron Works, Coatbridge; Eglinton Iron Works, Kilwinning;

Baird (William) & Co., Ltd.—*continued.*

Lugar Iron Works, Cumnoch; Iron Works, Muirkirk; Bedlay Coke Ovens and Bye-Products Works, Glenboig; Dumbreck Coke Ovens & By-Products Works, Kilsyth; Raasay Ironstone Mines, Raasay; Limestone Quarries, Beaumaris. *Collieries:* Bothwell, Kilsyth, Glenboig, Bathgate, Kilwinning, Cumnock, Muirkirk, Dalry, and Prestwick.

Baker & Finnemore, Ltd.

MAKERS OF STEEL PENS.

Head Office and Works: Bakfin Works, Newhall Street, Birmingham. *Cable Address:* "Bakfin, Birmingham." *Codes:* A.B.C., Liebers.

AGENTS OVERSEAS:

France—Societé Commerciale Franco Britannique, 11bis Rue Nouvelle, Paris. **Belgium**—Societé Commerciale Franco Britannique, 3 Rue Rempart des Moines, Brussels. **Italy**—Signor Dario Jacques, Via Provinciale Pisana, 18, Pontedera.

Baldwins, Ltd.

IRONMASTERS AND COLLIERY PROPRIETORS.

Head Offices: 33-35 St. Mary Axe, E.C. 3. *London Office:* 3, St. Helen's Place, London, E.C. *Works:* Banbury, Newport, Pontypool, Swansea, Stourport, Kidderminster, Brierley Hill, Dudley, London, Port Talbot, Brymbo, Gowerton, Aberbaiden, Bryn, Cribbwr, Albion, Porthcawl, Cwmtwrch. *Cable Address:* "Promptitude, Led, London." *Codes:* A.B.C. (5th Edition), Western Union, Bentley's, Complete Phrase Code.

Balfour (Arthur) & Co., Ltd.

Head Office and Works: Capital & Dannemora Steel Works, Sheffield. *Cable Address:* "Arbour, Sheffield." *Codes:* Western Union, A.B.C. (4th and 5th Editions), Lieber's, A1, Telegraphic, Marconi International, Bentley's.

BRANCHES OVERSEAS:

Australia—The Eagle & Globe Steel Co., Ltd., 266, Latrobe Street, Melbourne; 379, Kent Street, Sydney; 46, Boulder Road, Kalgoorlie; 48, Cliff Street, Fremantle. **China**—The Eagle & Globe Steel Co., Ltd., 8, Museum Road, Shanghai. **Africa**—Arthur Balfour & Co. (Africa), Ltd., 60-63, National Bank Buildings, Simmonds Street, Johannesburg. **Canada**—Arthur Balfour & Co. (Canada), Ltd., Montreal and Toronto. **Japan**—Arthur Balfour & Co., Ltd., 1, Minami Saegi-cho Kyobashiku, Tokyo; 35, Honden, Nibancho, Nishiku, Osaka. **U.S.A.**—The Arthur Balfour Steel Co., Inc., 389-391, Atlantic Avenue, Boston, Mass.

AGENTS OVERSEAS:

Australia—Chas. Atkins & Co., Ltd., 88-90, Currie Street, Adelaide, S.A.; John Reid & Nephews, 34-38, Charlotte Street, Brisbane; Paul & Gray, Ltd., Scott Street, Newcastle, N.S.W. **New Zealand**—A. R. Hislop, 37, Victoria Street, Wellington; A. R. Hislop, Ltd., 37, Fort Street, Auckland; H. McClelland, 83, Cashell Street, W. Christchurch. **India**—John King & Co., Ltd., 40, Strand Road, Calcutta; Bird & Co., P.O. Box 299, Bombay. **British East Africa**—John Cook, Dent & Hudson, Nairobi. **Canada**—Dominion Equipment & Supply Co., Ltd., Winnipeg; Frank Darling & Co., Ltd., Vancouver, B.C. **U.S.A.**—The Whiton Hardware Co., Seattle, Washington. **Dutch East Indies**—Lindeteves-Stokvis, J. W. Brouwersplein, 2 Amsterdam, Holland. **Mexico**—Watson, Phillips & Cia, Sucs. S. en C., Avenida Uruguay No. 103, Mexico City. **Argentine Republic**—Tema, Compañia de Exportación Técnica América, Azopardo 579, Buenos Aires. **Brazil**—The Anglo-Brazilian Commercial & Agency Co., Ltd., Rio de Janeiro; Sao Paulo; Pernambuco; Porto Alegre; Bahia; Para; Curityba; Pelotas. **France**—Soc. Francaise des Forges et Aciers "Capital," 24, Boulevard Magenta, Paris. **Belgium**—J. Hamal-Nandrin, 33, Rue de Pitteurs, Liége. **Italy**—Peri & C., Via Principe Umberto 16, Milano; Gino Carrara, Piazza 5, Lampadi 14-21, Genova; Enrico Fiorillo, Corso Umberto 41 Leghorn. **Switzerland**—P. A. Bourgeois, Wytixonerstrasse, 37, Zurich, VII. **Spain**—Trinitario Ferrero, San Pablo 4,402da, Barcelona. **Portugal**—F. Street & Co., Ltd., Lisbon; Oporto. **Norway**—Ludv. A. Foss, Sjofartsbygningen, Christiania **Holland**—Van Eyle & Ruygers, Leuvehaven, W.Z. 81 & 83, Rotterdam; Groningen. **Copenhagen**—Henning Klee, Godthaabsvej 34, Copenhagen, F.; V. Lowener, Vesterbrogade, 9B, Copenhagen, B. **Stockholm**—Aktiebolaget V. Löwener, Stockholm. **Straits Settlements, Federated Malay States**—United Engineers, Limited, Singapore. **Siam**—United Engineers, Ltd., Bankok. **Cochin China, Laos, Cambodia, Annam**—L. Jacques & Cie. **Cuba**—V. G. Mendoza Co., Apardato 1670, Cuba No. 3, Habano. **Bulgaria, Turkey, Greece, Servia, Syria, Mesopotamia, Palestine, Tripoli, Tunis**—The Levant Co., Limited.

Balfour, Beatty & Co., Ltd.

ELECTRICAL, MECHANICAL AND CIVIL ENGINEERS.

Head Office: 66, Queen Street, London, E.C.4. *Scotch Office:* 63, Castle Street, Edinburgh. *Cable Address:* "Ruoflab, London." *Codes:* Liebers, Western Union, A.B.C. (5th Edition), Bentley's.

AGENTS OVERSEAS:

Brazil—London Brazilian Bank Buildings, P.O. Box 118, Maranhao.

Bank of Liverpool & Martins, Ltd.

(*See Advertisement Section, page* **195.**)

Head Office: 7, Water Street, Liverpool. *Foreign Branch:* 3, Fenwick Street, Liverpool. *Cable Address:* Head Office, "Argosy," Foreign Bch., "Argofor." *Codes:* Bentley's, Liebers, A.B.C., Western Union.

AGENTS OVERSEAS:

U.S.A.—Brown Bros. & Co., New York and Branches; National Bank of Commerce, New York; Anglo-South American Bank, Ltd., New York. **Canada**—Bank of Montreal, Montreal and Branches; Merchants' Bank of Canada, Montreal and Branches. **S. America**—London and River Plate Bank; Anglo-South American Bank, Ltd. **Brazil**—London and Brazilian Bank. **S. Africa**—Standard Bank of South Africa. **Egypt**—National Bank of Egypt. **Turkey**—National Bank of Turkey. **France**—Societe Generale, Paris. **Holland**—Rotterdamsche Bank, etc.

Banner (Samuel) & Co., Ltd.

(*See Advertisement Section, page* **243.**)

WHITE SPIRIT AND MATCHLESS BOILED AND RAW LINSEED OIL SUBSTITUTES.

Head Office : 8, Fazakerley Street, Liverpool. *Works :* Sandhill's Lane. *Cable Address :* "Banner, Liverpool." *Code :* A.B.C. (5th Edition).

Barclays Bank Limited.

Head Office : 54, Lombard Street, London, E.C.3., and over 1,400 branches in England and Wales. *Telegraphic Address :* "Fifty-four, Stock, London."

Agents and Correspondents in all the principal towns throughout the world.

Barclay, Perkins & Co., Ltd.

MALT LIQUORS, STOUT, ALE AND LAGER.

Head Office and Brewery : Park Street, Southwark, London, S.E.1. *Cable Address :* "Strongest, London." *Codes :* A.B.C. (5th Edition), Western Union.

Barker Bros., Silversmiths, Ltd.

Head Office : Unity Works, Constitution Hill, Birmingham.

Bar-Lock Typewriter Co., Ltd.

TYPEWRITERS, TYPEWRITER INK RIBBONS AND CARBON PAPER.

Head Office : 101, Southwark Street, S.E.1. *Works :* Barlock Road, Nottingham. *Cable Address :* "Barlock, London." *Code :* A.B.C. (5th Edition).

Barlow & Jones, Ltd.

(*See Advertisement Section, page* **134.**)

MAKERS OF COTTON GOODS.

Head Office : 2, Portland Street, Manchester. *Mills :* Bolton. *Cable Address :* "Osman." *Codes :* Western Union, A.B.C. (4th and 5th Editions), Lieber's.

AGENTS OVERSEAS :

U.S.A.—13-15, White Street, New York. **Australia**—252-4, Flinders Lane, Melbourne ; 69, York Street, Sydney ; 5, Gay's Arcade, Adelaide ; 7, Commonwealth Building, Brisbane ; 81, St. George's Terrace, Perth, W.A. **New Zealand**—11, Grey Street, Wellington. **S. Africa**—P.O. Box 1245, Capetown ; P.O. Box 6199, Johannesburg ; P.O. Box 864, Durban. **British East Africa**—P.O. Box 100, Nairobi. **Canada**—Montreal and Winnipeg.

Barr & Stroud, Limited.

RANGEFINDERS AND OTHER OPTICAL, MECHANICAL AND ELECTRICAL INSTRUMENTS AND PRECISION MACHINES.

Head Office and Works : Anniesland, Glasgow. *Cable Address :* "Telemeter, Glasgow." *Code :* A.B.C. (5th Edition).

Barran (John) & Sons, Ltd.

(*See Advertisement Section, page* **161.**)

MAKERS OF CLOTHING.

Head Office and Works : Chorley Lane, Leeds. *Cable Address :* "Barrans, Leeds." *Code :* A.B.C. (5th Edition).

AGENTS OVERSEAS :

Australia—D. S. Macphail & Sons, Ltd., 38, York Street, Sydney, N.S.W. **New Zealand**—F. Laurenson & Co., 30, Cuba Street, Wellington. **S. Africa**—J. H. Brown, Johannesburg.

Barringer, Wallis & Manners, Ltd.

PLAIN AND DECORATED TIN BOXES, METAL ADVERTISEMENT TABLETS AND ADVERTISING NOVELTIES.

Head Office : Mansfield. *Works :* Mansfield and Sutton-in-Ashfield. *Cable Address :* "Manners, Mansfield." *Codes :* A.B.C. (5th Edition), Lieber's and Western Union.

Barrow Hematite Steel Co., Ltd.

(*See Advertisement Section, page* **280.**)

Head Office and Works : Barrow-in-Furness. *Cable Address :* "Hematite." *Codes :* A.B.C. (4th and 5th Editions), Lieber and A1.

Barrow (Samuel) & Brother, Ltd.

(*See Advertisement Section, page* **300.**)

MAKERS OF LEATHER.

Head Office : Weston Street, London, S.E.1. *Tanneries :* The Grange, Bermondsey, and Redhill, Surrey. *Cable Address :* "Handbarrow, London." *Codes :* Widebrook, A.B.C. (5th Edition), A1, Lieber's, Western Union, Tybo and Bentley's.

AGENTS OVERSEAS :

Australia—A. M. Scott & Co., Sydney, N.S.W. **S. Africa**—H. Sandilands, Cape Town. **India**—Best & Co., Ltd., Madras.

Bastard (J. & W.).

(*See Advertisement Section, page* **302.**)

SPINNERS OF WORSTED YARNS.

Head Office : Stamford Street, Leicester. *Bradford Office :* 195-6, Swan Arcade, Bradford. *Works :* Frog Island, Leicester, and Bingley, Yorks. *Cable Address :* "Yarns, Leicester." *Codes :* A.B.C. (5th Edition), Bentley's, Western Union, Marconi International.

AGENTS OVERSEAS :

U.S.A.—J. & W. Bastard Boston Co., 184, Summer Street, Boston. **Denmark**—Mr. A. Hoff, 45, Bredgade, Copenhagen, **Australia**—Wain Bros., Commerce House, 328, Flinders Street, Melbourne.

Batchelor, Robinson & Co., Ltd.

STEEL SCRAP (IN HYDRAULICALLY COMPRESSED BRIQUETTES), SOLDER, CHEMICALS, TIN, TIN PERCHLORIDE AND BY-PRODUCTS.

Head Office : Artillery Street Works, Birmingham. *Works :* Nevill's Dock, Llanelly; Longhill, West Hartlepool.

Bates (W. & A.), Ltd.

(*See Advertisement Section, page* **16.**)

MAKERS OF INDIA RUBBER.

Head Office and Works: St. Mary's Mills, Leicester. *Cable Address:* "Setab, Leicester." *Codes:* A.B.C. (5th Edition), Bentley's, Marconi International, Western Union (Universal and 5 letter).

AGENTS OVERSEAS:

Holland—Bates Tyre Co. (Holland), Ltd., Prinsengracht 311, Amsterdam. **Belgium**—Compagnie Bates, Ltd., 31, Rue Gaucheret, Bruxelles. **Italy**—Bates Tyre Co. (Italy), Ltd., Via E. De Amicis 51, Milan. **Denmark**—Paul Christensen, Kronborg Vandkunsten, Copenhagen. **New Zealand**—Cycle & Motor Supplies, Ltd., Featherston and Johnston Street, Wellington, and at Christchurch. **Australia**—Bennett & Barkell, Ltd., Meagher & Chippen Streets, Chippendale, Sydney; A. G. Healing (Proprietory), Ltd., 354-6, Post Office Place West, Melbourne; Cornell, Ltd., 122-4, Pirie Street, Adelaide. **Canada**—Associated British Industries (of Canada,) Ltd., 149, Victoria Street, Toronto, Ontario. **India and Burma**—Skippers & Co., Ltd., Head Office, 86/1, Clive Street, Calcutta; Branches, Bombay, Cawnpore, Madras and Rangoon. **Straits Settlements**—A. C. Davis, Manufacturers' Representative, Penang. **Mexico**—W. W. Allen, Apartado 1,424, Mexico, D.F. **Siam**—Siamese Tobacco Co., Ltd., Phitstien Bridge, Bangkok. **Mauritius**—H. Brun, Port Louis. **Nyasaland**—African Lakes Corporation, Ltd., Mandala, Blantyre, Nyasaland. **S. Africa**—H. E. A. Smith, Lawson's Buildings, Von Brandis Street, Johannesburg. **Ceylon**—Skippers & Co., Ltd., Colombo (Head Office, 86/1, Clive Street, Calcutta). **Malta**—M. Muscat, 270, Strada Reale, Valletta, Malta. **Egypt**—(Motor Cycle Tyres) G. Pavid & Co., Sharia Elfi Bey, Cairo; (Other Lines) F. J. Andrade, Cairo. **Gibraltar**—Union Cycle Co., 7, King Street.

Batger & Co.

CONFECTIONERS.

Head Office and Works: Brook Street, Ratcliff, London, E.1. *Cable Address:* "Batger Company, Step, London." *Codes:* A.B.C. Code (4th and 5th Editions), Lieber's Standard Telegraphic Code and Bentley's Phrase Code.

AGENTS IN ALL PARTS OF THE WORLD.

Bath Aircraft, Ltd.

DECORATIVE JOINERY AND HIGH-CLASS FURNITURE.

Head Office: 5 and 6, Avon Buildings, Lower Bristol Road, Bath. *Works:* "Flight Works," Lower Bristol Road, Bath. *Cable Address:* "Flight Works, Bath, England." *Code:* A.B.C. (5th Edition).

Bayer (Charles) & Co., Ltd.

CORSETS, LADIES' WHITE UNDERWEAR, DRESSING GOWNS, CHILDREN'S OVERALLS, LADIES' AND CHILDREN'S WOVEN UNDERWEAR.

Registered Office: 31, London Wall, E.C.2. *Factories:* Bath, Portsmouth, Oldland Common, Shirehampton, Landport, Londonderry, Bristol and Victoria Buildings, Golden Lane.

Bayliss, Jones & Bayliss, Ltd.

(*See Advertisement Section, page* **67.**)

IRON AND STEEL BARS, BOLTS, NUTS, FENCING, CAST ROLLS, ETC.

London Office: 139-141, Cannon Street, London, E.C.4. *Works:* Victoria Works, Wolverhampton. *Cable Address:* "Bayliss, Wolverhampton." *Codes:* A.B.C., Western Union, Lieber's and Bentley's.

Bayliss (William), Ltd.

(*See Advertisement Section, page* **36.**)

Head Office: Islington Tube Works, Sheepcote Street, Birmingham. *Works:* Sheepcote Street. *Cable Address:* "Drawbench, Birmingham." *Code:* A.B.C. (5th Edition).

AGENTS OVERSEAS:

Australasia—Essex R. Picot, Limited, 20, Young Street, Sydney. **Near East**—Associated British Manufacturers (Near East), Ltd. **Turkey**—40-42, Union Han, Galata, Constantinople. **Bulgaria**—97, Viitorului, Bucharest. **Serbia**—Knez Michaellova Ulitza 21, Belgrade. **Greece**—3, Kapnicarea Street, Athens. **France**—E. Jageneau & Co., 49, Rue de Tournai, Lille, also at Paris and Brussels. **Denmark**—H. V. Lassen, Landemaerket, 9, Copenhagen. **Holland**—Andries Appel, 29, Reguliersgracht, Amsterdam.

Beal (Samuel).

MAKERS OF BOOTS AND SHOES.

Head Office and Works: Sanvey Gate, Leicester. *Cable Address:* "Samuel Beal, Leicester." *Code:* A.B.C. (5th Edition).

All foreign business done through The British Boot & Shoe Exporters, Ltd., of 62, London Wall, London, E.C.2.

Beardmore (William) & Co., Ltd.

(*See Advertisement Section, page* **227.**)

STEEL MANUFACTURERS, FORGEMASTERS, SHIPBUILDERS AND ENGINEERS.

Head Office and Works: Parkhead Steel Works, Parkhead, Glasgow. *Registered Office:* 36, Victoria Street, London, S.W.1. *Cable Address:* "Beardmore, Glasgow." *Codes:* A.B.C. (5th Edition), A1, Lieber's, Western Union and Western Union (5 letter Edition).

Beardshaw (J.) & Son, Ltd.

Head Office and Works: Baltic Steel Works, Sheffield. *Cable Address:* "Beardshaw, Sheffield." "Vilvalle, London." *Codes:* A.B.C. (5th Edition), Marconi.

AGENTS OVERSEAS:

Belgium—Alex. Deloge, Rue du Compas 7 et 9, Bruxelles-Midi. **Spain**—Harry Walker, Calle Balmes. 84, Barcelona. **Norway**—Axel Frantze, Dronnengensgate 34, Christiania; Morten Engebretsen, Tordenskjoldegate, 7, Christiania. **Sweden**—Elektrostal Verken, Skeppsbron 8, Stockholm. **Egypt**—J. A. Sasson & Co., Rue el Caied Gohar No. 16, Place Ste. Catherine, Alexandria. **Australia**—N. Guthridge, Ltd., 350, George Street, Sydney, N.S.W.; John O'Neill & Co., 496, 498, Kent Street, Sydney, N.S.W. **New Zealand**—W. T. Johnson & Co., Wellington; Swincock & Palmer, Auckland. **Holland**—Corns. Koning, junr., 47A, Spuistraat, Amsterdam. **Canada**—Whitehead, Winans, Ltd., 258, Beaver Hall Hill, Montreal.

Bedford & Mill Lane Spinning Co., (1920) Ltd.

MAKERS OF COTTON YARNS (EGYPTIAN).

Head Office and Works: Avon Street, Leigh, Lancs. *Cable Address:* "Twist, Leigh, Lancs."

Beldam Packing & Rubber Co., Ltd.

(*See Advertisement Section, page* **123.**)

MAKERS OF ASBESTOS PACKINGS, JOINTINGS, ETC.

Head Office: 29, Gracechurch Street, London. *Works:* Windmill Road, Brentford. *Cable Address:* "Corrugated." *Code:* A.B.C. (5th Edition).

AGENTS IN ALL IMPORTANT PORTS.

Belgrave Mills Co., Ltd.

COTTON SPINNERS AND DOUBLERS.

Head Office and Works: Belgrave Mills, Honeywell Lane, Oldham, Lancashire. *Cable Address:* "Belgravia, Oldham."

Bell Brothers, Ltd.

IRON, COAL, COKE AND BY-PRODUCTS, FIREBRICKS, SULPHURIC ACID, ETC.

Head Office: Zetland Road, Middlesbrough. *Works:* Clarence Ironworks, Port Clarence. *Cable Address:* "Bells, Middlesbrough." *Code:* A.B.C.

Bell Piano & Organ Co., Ltd.

(*See Advertisement Section, page* **9.**)

MAKERS OF PIANOS, PLAYER PIANOS AND REED ORGANS.

Registered Office: 82, Victoria Street, Westminster, S.W.1. *Works:* 109, Bartholomew Road, Kentish Town, N.W.5. *Cable Address:* "Bellorgue Camroad, London." *Codes:* A.B.C. (5th Edition), Western Union and Western Union (5 Letter Edition).

AGENT OVERSEAS.

Canada—Bell Piano & Organ Co., Ltd., Guelph, Ontario.

Bell's United Asbestos Co., Ltd.

(*See Advertisement Section, page* **175.**)

Head Office: Southwark Street, London, S.E. *Works:* Harefield, Middlesex. *Cable Address:* "Belfry, London." *Codes:* A.B.C. (5th Edition), Western Union and Bentley's.

AGENTS OVERSEAS:

Australia—Bells' Asbestos Australian Agency, Ltd., Fremantle, Melbourne, Sydney and Perth. **China**—United Asbestos Oriental Agency, Ltd., Hong Kong. **New Zealand**—John Chambers & Son, Ltd., Auckland, Christchurch, Dunedin and Wellington. **Singapore, Dutch E. Indies, etc.**—Bell's Asbestos Eastern Agency, Ltd., Singapore. **S. Africa**—United Asbestos African Agency, Ltd., Johannesburg; also at **Amsterdam, Antwerp, Bergen, Copenhagen, Trieste, etc.**

Belsize Motors, Ltd.

Head Office: Clayton, Manchester. *Works:* Clayton Lane, Clayton, Manchester. *Cable Address:* "Belsize, Manchester." *Codes:* A.B.C. (5th Edition), Western Union, Marconi International Code, Lieber's.

Benn (J.), Junr.

MAKERS OF WORSTEDS, COATINGS AND STUFFS.

Head Office: 11, Forster Square, Bradford. *Works:* Springfield Mills, Idle, Bradford. *Cable Address:* "Radium, Bradford." *Codes:* A.B.C. (5th Edition), and Marconi.

AGENTS OVERSEAS:

France—C. Hervieu, 12, Rue Paul Lelong, Paris. **Canada**—Wright & Morgan, Victoria Chambers, 232, McGill Street, Montreal. **Belgium**—Chiltz Freres, 20, Avenue Jean Volders, Brussels. **Norway**—Trygve Young, Akersgaten 7, Christiania. **Holland**—Brabander & Zoon, Valerinsstraat 9, Amsterdam. **Egypt**—Setton Friedmann & Co., Alexandria and Cairo. **Spain**—Valentin Fernandez, Llander, 1, Barcelona. **New Zealand**—H. W. Airey, Ltd., 409, Insurance Co. Building, Auckland. **Italy**—Turah & Chiappa, 19, Via S. Maria Fulcorina, Milan. **Australia**—J. L. Colman & Co., Pomeroy House, York Street, Sydney.

Bentley (Albert Ed.), Ltd.

MAKERS OF PLAIN AND DECORATED CANISTERS.

Head Office and Works: Wharf Street, Tin Canister Works. Ancoats, Manchester. *Cable Address:* "Canistrum, Manchester."

Benton & Stone, Ltd.

MOTOR, AIRCRAFT AND HORTICULTURAL ENGINEERS AND MANUFACTURERS OF BRASS TUBES.

Head Office: Bracebridge Street, Birmingham. *Works:* Bracebridge Street and Aston Brook Street, Birmingham. *Cable Address:* "Enots, Birmingham." *Code:* A.B C.

AGENTS OVERSEAS:

France—Rollett et Cie, 64, Rue de la Folie Mericourt, Paris. **Spain**—Antonio Nicolau, Balmes 22, Barcelona. **Italy**—Weiss & Stabilini, Via Settembrini 9, Milan. **Belgium**—Maurice Wanson, 66, Rue du Tabellion, Brussels. **Scandinavia**—S. Thorup, Vesterbros Torv, Copenhagen, B, Denmark. **Australasia**—William Hinson, 34, Queen Street, Melbourne; Cashmore & Russell, Elizabeth House, Melbourne, 282, Clarence Street, Sydney. **S. Africa**—W. J. Hipwell, P.O. Box 2067, Capetown. **India and The East**—A. R. Spiers, G.P.O., Bombay. **Canada**—Associated British Industries (Canada), Ltd., 149, Victoria Street, Toronto, Ontario. **Egypt**—S. A. Wisnom, 27, Sharia Soliman Pasha, Cairo; 19, Nébi Daniel, Alexandria.

Berger (Lewis) & Sons, Ltd.

PAINTS, COLOURS, VARNISHES, INSECTICIDES, ETC.

Head Office and Works: Homerton, London, E.9. *Cable Addresses:* "Lewberg, London." *Codes:* Bentley's, A1, Western Union, A.B.C.

AGENTS OVERSEAS:

Australia—16 and 18, Young Street (Factory at Rhodes), Sydney, N.S.W. **France**—4, Rue Beffroy, Neuilly S.S., Paris. **S. Africa**—P.O. Box 1045, Durban; P.O. Box 1341, Cape Town. **India**—6, Waterloo Street (P.O. Box 190), Calcutta; 75, Hornby Road (P.O. Box 225), Bombay. **China**—P.O. Box 239, Shanghai. **Argentine**—Calle Moreno 750, Buenos Aires. **Belgium**—61, Rue de la Justice, Antwerp. **Spain**—Gran Via, 29, Bilbao, **Brazil**—Caixa No. 280, Rio de Janeiro.

Berry (Henry) & Co., Ltd.

HYDRAULIC MACHINE TOOL SPECIALISTS.

Head Office and Works: Croydon Works, Hunslet, Leeds. *Cable Address:* "Rivetter, Leeds." *Codes:* A.B.C. (5th Edition), A1, Marconi International, Engineering, Everybody's Pocket.

Bessemer (Henry) & Co., Ltd.

MAKERS OF STEEL.

Head Office: Carlisle Street East, Sheffield. *Works:* Sheffield and Bolton, Lancs. *Cable Address:* "Bessemer, Sheffield." *Code:* A.B.C. (5th Edition).

Betts & Co., Ltd.

(*See Advertisement Section, page* **132.**)

MAKERS OF METALLIC CAPSULES, ETC.

Head Office: 1, Wharf Road, City Road, London, N.1. *Works:* As above, and at Holloway Mills, Elthorne Road, London, N., and Batavia Mills, Elthorne Road, London, N. *Cable Address:* "Checkmate, Hox, London." *Codes:* A.B.C. (5th Edition) and Lieber's.

AGENTS OVERSEAS:

France—65, Rue de la Vérrerie, Paris; 38, Rue du Consulat, Marseilles; La Bastide, Bordeaux.

Beyer, Peacock & Co., Ltd.

LOCOMOTIVE ENGINE BUILDERS AND MACHINE TOOLS, ETC.

Head Office and Works: Gorton, Manchester. *Cable Address:* "Loco, Gorton." *Codes:* A.B.C. (5th Edition), Western Union, A1.

AGENTS OVERSEAS:

Australia—W. J. Adams, 175, Clarence Street, Sydney, N.S.W. **Argentine Republic**—P. Grant & Co., 25 de Mayo, 158, Buenos Aires. **S. Africa**—Chiappini Bros., St. Georges Street, Cape Town.

Bibby (J.) & Sons, Ltd.

(*See Advertisement Section, page* **239.**)

SEED CRUSHERS, VEGETABLE OIL REFINERS, FEEDING STUFFS, ETC.

Head Office: King Edward Street, Liverpool. *Works:* Waterloo Road, Liverpool. *Cable Address:* "Feeding, Liverpool." *Codes:* A.B.C. (4th and 5th Editions), Lieber's, Bentley's.

Bibby (John), Sons & Co. (Garston), Ltd.

COPPER, YELLOW METAL, NAVAL BRASS PLATES, SHEETS, ETC.

Head Office and Works: Garston Copper Works, Garston, Liverpool. *Cable Address:* "Bibby, Liverpool." *Code:* A.B.C. (5th Edition).

Birch (William), Ltd.

(*See Advertisement Section, page* **42.**)

CHAIRS AND SETTEES, CABINET MAKERS AND GENERAL FURNITURE MANUFACTURERS.

Head Office: 370, Euston Road, London, N.W. *Works:* High Wycombe. *Cable Address:* "Amboynese, Eusroad, London." *Codes:* A.B.C. (5th Edition), and Western Union.

Birchley Rolling Mills, Ltd.

IRON AND STEEL BARS, STRIP HOOPS, SHEETS AND PLATES.

Head Office: Birchfield Lane, Oldbury, Worcs.

Birmingham Aluminium Casting (1903) Co., Ltd.

Address: Cambridge Street Works, Birmingham.

Birmingham Battery & Metal Co., Ltd.

BRASS AND COPPER TUBES, SHEETS, WIRE, RODS, ETC.

Address: Selly Oak, Birmingham. *Cable Address:* "Battery, Selly Oak." *Codes:* A.B.C., A1, Western Union, and Marconi International.

Birmingham Corrugated Iron Co., Ltd. (The).

(*See Advertisement Section, page* **65.**)

Head Office and Works: Ditton Road, Widnes. *Cable Address:* "Corrugated, Widnes." *Codes:* A.B.C. (5th Edition), and A1.

Birmingham Railway Carriage & Wagon Co., Ltd.

Head Office and Works: Smethwick, nr. Birmingham. *Cable Address:* "Carriage, Smethwick." *Codes:* A.B.C. (5th Edition), Lieber's, Western Union.

AGENTS OVERSEAS:

France—Ateliers de Constructions Mecaniques de l'Atlantique, la Pallice; J. Lafuge & Co., 14, Rue de Moscou, Paris.

B.S.A. Cycles, Ltd.

(*Proprietors:* **The Birmingham Small Arms Co., Ltd.**)

Head Office and Works: Small Heath, Birmingham. *Cable Address:* "Selcyc, Birmingham." *Codes:* A.B.C. (4th, 5th & 6th Editions), (5 letter), Lieber's, Western Union.

AGENTS OVERSEAS:

Australasia—D. Y. Rennie, 4, Australian Buildings, Elizabeth Street, Melbourne. **Argentine**—J. and J. Drysdale & Co., 42-45, New Broad Street, London. **S. Africa**—Stansfield, Ratcliffe & Co., Ltd., P.O. Box 797, Cape Town, Cape Colony. **Japan**—The Futabaya Co. Ltd. (Agents for B.S.A. Cycles, Motor Cycles, and Eadie Specialities), 7, Tatami-Cho, Kyobashi-Ku, Tokyo. **Chile**—A. Gibbs & Sons, 22, Bishopsgate, London, E.C.2. **France**—Brown Brothers, Ltd. (Agents for B.S.A. Cycles and Motor Cycles and B.S.A. Fittings), 31, Rue de la Folie-Mericourt, Paris; C. Comiot (Agent for Eadie specialities), 87, Boulevard Couvion, St. Cyr, Paris. **Italy**—Fabbre Gagliardi & Co. 23, Piazza Macello, Milan. **Norway, Sweden and Denmark**—Simonsen & Nielsen, Ltd., 4, Frederiksholme Kanal, Copenhagen. **Holland**—Hugo Smit, 278, Prinzengracht, Amsterdam. **Switzerland**—Manufacture Generale de Cycles, S. A., Rue de l'Arquebuse 16, Geneva. **Belgium**—P. Plasman, 20, Boulevard Maurice Lemonnier, Brussels. **Greece**—E. M. Maniakis, 11, St. Meletiou Street, Athens (Agent for B.S.A. Bicycles); Vorrés & Taylor, Broad Street Avenue, London, E.C.2, and 18, Heyden Street, Athens (Agents for B.S.A. Motor Bicycles).

Birnbaum (B.) & Son, Ltd.

(*See Advertisement Section, page* **135.**)

MAKERS OF MACINTOSH AND RAINPROOF GARMENTS.

All Communications to: 3B, Cannon Street, London, E.C. *Cable Address:* "Birnbaum, London." *Code:* A.B.C. (5th Edition).

Birtley Iron Company.

IRON CASTINGS, COLLIERY PLANTS, STRUCTURAL WORKS & FORGINGS.

Address: Birtley, Co. Durham.

Birtwistle (J. H.) & Co., Ltd.

COTTON SPINNERS AND MANUFACTURERS.

Head Office: Grane Road Mill, Haslingden. *Works:* Grane Road Mill, Haslingden and Park Mill, Helmshore. *Cable Address:* "Anchor, Haslingden." *Codes:* A.B.C. (5th Edition) and Private Code.

AGENT OVERSEAS:

Holland—Amsterdam—Singel 132.

Birtwistle (William).

MAKER OF YARNS AND COTTON CLOTH.

Head Office and Works: 68, Faulkner Street, Manchester.

Blackstone & Co., Ltd.

OIL ENGINES, HAYMAKING MACHINERY AND MILLING PLANTS, ETC.

(*Branch of Agricultural and General Engineers, Ltd.*)

Works: Stamford. *Cable Address:* "Agroengic. Phone, London." *Code:* A.B.C. (5th Edition).

AGENTS OVERSEAS:

Australasia—61-63, Hindley Street, Adelaide; Marine Terrace, Geraldton, W.A.; 585, Bourke Street, Melbourne; 352, Kent Street, Sydney; South Belt, Christchurch, N.Z. **Egypt**—Rue de la Gare du Caire, Alexandria; Rue Bab-el-Hadeed, Cairo. **Belgium**—33, Rue des Peignes, Antwerp. **India**—Marshall's Buildings, Ballard Road, Bombay; 99, Clive Street and 25, Strand, Calcutta; Napier Road, Anarkalli, Lahore; 9, Second Line Beach (Post Box 141 Madras E.) Madras. **S. America**—333, Calle Peru, 335, Buenos Aires, Argentine. **S. Africa**—East London (South Africa), Cambridge Street. **Italy**—Via Palermo 8-10, Milan. **France**—28, Boulevard de l'Hopital, Paris. **China**—20, Foochow Road, Shanghai. **Holland**—26, Verhulststraat, The Hague. **Canada**—Corner of King and Simcoe Streets, Toronto. **N. Africa**—109, Rue de Portugal, Tunis. **Scotland**—Paton Street, Glasgow. **Ireland**—Dickies Warehouse, South Dock Street, Dublin.

Blackwell Colliery Co., Ltd.

Address: Blackwell, Alfreton, Derby.

Blackwell (Geo. G.), Sons & Co., Ltd.

FERRO-TUNGSTEN METALS, FERROUS AND NON-FERROUS ALLOYS, METALLURGICAL SPECIALITIES, ETC.

Head Office: The Albany, Liverpool. *Works:* Garston, Nr. Liverpool. *Cable Address:* "Blackwell, Liverpool." *Codes:* A.B.C. (4th and 5th Editions), Mining Tel. Code, E. B. Broomhall, Moreing & Neal New General, Lieber's, Western Union, Blackwells (3 and 4 Letter), Bentley's.

AGENTS OVERSEAS:

France—Etabs. Metallurgiques Geo. G. Blackwell, Fils & Cie., Soc. Anon, 18, Rue Laffitte, Paris.

Blackwell (Robert W.) & Co., Ltd.

(*See Advertisement Section, page* **64.**)

ELECTRICAL APPARATUS, FLEXIBLE ROOFING, ETC.

Head Office: 36, Emperor's Gate, South Kensington, London, S.W.7. *Works:* Lansdowne Road, East Croydon, Surrey. *Cable Address:* "Kurkee, London." *Codes:* A.B.C. (5th Edition), Lieber's, Western Union, Bentley's, A1, Marconi, New Business.

AGENTS OVERSEAS:

U.S.A.—49, Wall Street, New York. **S. Africa**—J. W. Saaler, 9, Trust Buildings, Fox and Loveday Streets, Johannesburg.

Blaenavon Co., Ltd.

COLLIERY OWNERS, IRON, STEEL, COKE AND BY-PRODUCTS.

Head Office and Works: Blaenavon, Monmouthshire. *Cable Address:* "Works, Blaenavon." *Code:* A.B.C. (5th Edition).

Blakeborough (J.) & Sons, Ltd.

WATER AND SEWAGE WORKS PLANT, VALVES FOR WATER, STEAM, GAS, ETC., STEAM FITTINGS AND BOILER MOUNTINGS FOR LAND OR MARINE PURPOSES.

Head Office and Works: Brighouse, England. *Cable Address:* "Blakeboroughs, Brighouse." *Codes:* A.B.C. (5th Edition), Western Union (Universal), Western Union (5 letter), Bentley's, Lieber's and Marconi.

Bleachers' Association, Limited.

Head Office: 4, Norfolk Street, Manchester.

Boake (A.), Roberts & Co., Ltd.

CHEMICAL MANUFACTURERS.

Head Office and Works: Stratford, London, E.15. *Cable Address:* "Boake-Strat.-London." *Codes:* A.B.C. (5th Edition), Lieber's, Bentley's, Private Code.

AGENTS OVERSEAS.

U.S.A.—Eimer & Amend, 205, Third Avenue, New York. **China**—Kwong Sang Hong, Hong Kong. **Straits Settlements**—Huttenbach & Co., Penang and Singapore. **S. Africa**—Barlow & Son, Ltd., Durban; Cape Cork Industries, Ltd., Cork Place, Green Point, Cape Town. **Switzerland**—F. E Crowe, Basle. **Italy**—Patetta & Decker, Corso Re Umberto, Turin. **Spain**—Jose Abello, Barcelona; Felio Fontanals, Barcelona. **France**—Gueret Freres, 74, Boulevard de la Gare, Paris; J. Abrard, Bordeaux. **Australasia**—R. Montgomery & Co., Pty., Ltd., 397 and 399, Little Collins Street, Melbourne; Weymouth Street, Adelaide; F. A. Henriques, Ltd., 56, Clarence Street, Sydney, N.S.W.; Perth, W.A.; Brisbane; Auckland, N.Z.; Speight, Justice & Co., Moray Place, Dunedin, N.Z.

Boath (John), Junr. & Co., Limited.

MAKERS OF LINEN AND JUTE GOODS.

Head Office and Works: Academy Street Works, Forfar. *Cable Address:* "Boath." *Code:* A.B.C. (5th Edition).

Boby (Robert), Ltd.

MAKERS OF GRAIN CLEANING AND HANDLING MACHINERY.

Head Office: St. Andrew's Works, Bury-St.-Edmunds, Suffolk. *London Office:* 63, Queen Victoria Street, E.C. *Cable Address:* "Screens, Bury-St.-Edmunds." *Codes:* A.B.C., Western Union, Bentley's and Marconi International.

Boden & Co., Ltd.

MAKERS OF MOSQUITO AND PLAIN NET.

Head Office: Castle Fields, Derby. *Works:* Nottingham, Derby, Chard, etc. *Cable Address:* "Boden, Derby."

Bolckow, Vaughan & Co., Ltd.

IRON AND STEEL. COLLIERY PROPRIETORS.

Head Office: Middlesbrough-on-Tees. *Works:* Middlesbrough and South Bank. *Cable Address:* "Bolckows, Middlesbrough." *Code:* A.B.C. (4th and 5th Editions).

AGENTS OVERSEAS:

U.S.A.—Rogers Brown & Co., Cortlandt Building, Hudson Terminal, 30, Church Street, New York.

Bolsover Colliery Co., Ltd.

Head Office: Bolsover, Nr. Chesterfield. *Collieries*, Bolsover, Creswell, Mansfield and Rufford.

Bolton (Thomas) & Sons, Ltd.

(*See Advertisement Section, page* **104.**)

COPPER, ETC.

Head Office: Widnes, Lancashire. *London Office:* 57, Bishopsgate, E.C.2. *Works:* Widnes, St. Helens, Oakamoor (N. Staffs.) and Froghall (N. Staffs.). *Cable Address:* "Wiredrawn, London." *Codes:* A.B.C. (5th Edition), A1, Lieber's, Western Union.

AGENTS OVERSEAS:

Holland—Van Houten & Zonen, Baan 103, Rotterdam. **Belgium**—Compagnie Belge des Mines, Minerais & Metaux, 95, Avenue de France, Antwerp. **Spain**—Wilfley Engineering Compania, S.A., Calle de la Diputacion, Bilbao. **Australia**—Gibson & Sons, 379, Kent Street, Sydney. **Norway**—C. Bagge, Toldbodgaten 3, Christiania. **S. Africa**—Rice Wilson & Herd, P.O. Box 930, Johannesburg. **New Zealand**—S. Brown, Ltd., Johnston Street, Wellington. **Canada and S. America**—British American Metal Co., 52, Vanderbilt Avenue, New York. **Italy**—S. Raineri, 3, Piazza delle Vigne, Genoa. **Finland**—A. B. Lang and Willfor, O.Y., Wasa & Helsingfors.

Booth (James) & Co. (1915), Ltd.

MAKERS OF METAL NON-FERROUS METALS.

Head Office and Works: Argyle Street, Nechells, Birmingham. *Cable Address:* "Booth, Birmingham." *Code:* Lieber's (5 Letter Code).

AGENTS OVERSEAS:

S. Africa—R. M. Dowson & J. H. Dobson, P.O. Box 6468, Johannesburg. **Argentine**—Percy Grant & Co., 25, de Mayo, 158, Buenos Aires. **Australia**—William Adams & Co., Ltd., corner King and Clarence Streets, Sydney. **British Columbia and West Canada**—Major A. M. Lester, 630-33, Rogers Building, Vancouver. **Chile**—Lockett Bros. & Co., Casilla 996, Valparaiso. **China**—H. B. Donaldson, Vickers-China, Limited, Peking. **Egypt, Soudan, and Palestine**—T. E. Pooley, 3, Haret Zogheb, Chareh el Manakh, Cairo. **Greece and Her Colonies**—Vickers-Hellenic, Limited, 3, Rue Sophocles, Athens **Newfoundland**—James Baird, Limited, Baird Buildings, St. John's. **New Zealand**—Major S. Blackley, Vickers-New Zealand, Limited, Wellington Club, Wellington. **Norway**—H. H. Broch, Junr., Prinsensgd 4, Christiania. **Peru**—W. J. Lockett, Casilla 1212, Lima. **Portugal**—Henry Burnay & Co., Lisbon. **Roumania**—E. D. Madge, Vickers-Roumania, Limited, c/o British Legation, Bucharest. **Spain**—Ignacio Fuster, Lealtad 8, Madrid. **Sweden**—Vickers, Limited, S. Ct. Eriksgatan 23, Stockholm. **Turkey**—Sir J. W. Whittall & Co., Ltd., Constantinople. **Brazil**—Vickers-Brazil, Limited, Rua da Quitanda, 145, Rio de Janeiro. **France**—R. Fagualin, 154, Rue du Faubourg St. Martin, Paris.

Booth (Joseph) & Bros., Ltd.

MAKERS OF CRANES AND ELECTRIC PLANT.

Head Office and Works: Rodley, Leeds. *Cable Address:* "Cranes, Rodley." *Codes:* A.B.C. (5th Edition), Bentley's.

AGENTS OVERSEAS:

Canada—Armstrong Machinery & Plant, 232, Lemoine Street, Montreal. **China**—Anglo-Chinese Engineering Association. **Australia**—Strachan Murray & Shannon, Ltd., Melbourne. **S. America**—Darsie G. Anderson & Partners, Buenos Aires.

Boots Pure Drug Co., Ltd.

CHEMISTS.

Head Office: Station Street, Nottingham. *Works:* Island Street, Nottingham. *Cable Address:* "Drug, Nottingham, Eng." *Code:* A.B.C. (5th Edition).

AGENT OVERSEAS:

India—Mr. H. B. Tilden, F.C.S., Poste Restante Bombay.

Borax Consolidated, Ltd.

MINERS OF BORATES, REFINERS OF BORAX, BORIC ACID, AND OTHER BORON PRODUCTS, ETC.

Head Office: 16, Eastcheap, London, E.C.3. *Works:* Belvedere, Kent, and Kidsgrove, Staffordshire, etc. *Cable Address:* "Colemanite, London." *Codes:* Bentley's, A.B.C., Western Union, etc.

AGENTS OVERSEAS:

Canada—701, Shaughnessy Building, McGill Street, Montreal. **Australia**—Lombard Buildings, 17, Queen Street, Melbourne; Grosvenor House, Grosvenor Street, Sydney. **Chili**—Casilla, No. 12 and 13, Antofagasta. **Peru**—Casilla, Correo No. 6, Arequipa.

Bott (George) & Son.

MAKERS OF HOSIERY.

Head Office and Works: Trinity Lane, Hinckley. *Cable Address:* "Botts, Hinckley." *Code:* A.B.C. (4th and 5th Edition).

AGENTS OVERSEAS:

Canada—A. B. Couch, 43, St. Sacrament Street, Montreal; G. R. Copping & Son, Melinda Street, Toronto. **S. Africa**—J. A. McKendry, 840 P.O. Box, Cape Town. **India**—C. H. Allen, 133, Canning Street, Calcutta.

Boving & Co., Ltd.

(*See Advertisement Section, page* **68.**)

WATER TURBINES, PIPELINES, CENTRIFUGAL PUMPS, PULP MILL EQUIPMENT, AND PAPER MAKING MACHINERY.

Head Office: 56, Kingsway, London, W.C.2. *Works:* Stoke-on-Trent, Staffs., England. *Cable Address:* "Jenorten, London." *Codes:* Western Union, A.B.C. (5th Edition), Marconi.

BRANCHES OVERSEAS:

France—68, Rue Caumartin, Paris (1xe). **Japan**—No. 1 Yaesu Cho, 1, Chome, Tokyo. **New Zealand**—Bank of New South Wales Chambers, Lambton Quay, Wellington. **Brazil**—with F. H. Walter & Co., 65, Rua General Camara, Rio de Janeiro.

AGENTS OVERSEAS:

Portugal—F. Street & Co., 64, Rua de Sa da Bandeira 68, Oporto. **Holland**—Sanders Birnie Technisch, 230, Frederik Hendriklaan, The Hague. **Poland**—The British Engineers and Traders' Syndicate, Warecka 9.m. 11, Warsaw. **Canada**—Boving Hydraulic & Engineering Co., Lindsay, Ontario. **S. America**—Walter & Co., 65, Rua General Camara, Rio de Janeiro, Brazil.

Bovril, Limited.

Head Office: 148-66, Old Street, London, E.C.1. England. *Works:* Bunhill Row, London, E.C.1, *Cable Address:* "Fluid, London." *Codes:* A.B.C. (5th Edition), Western Union, Marconi International.

ADDRESSES OVERSEAS:

Canada—Bovril, Ltd., 27, St. Peter Street, Montreal. **Belgium**—Bovril, Ltd., 39c, Rue du Lombard, Brussels. France—Produits Bovril, S.A., 102, Rue Reaumur, Paris.

AGENTS IN ALL THE PRINCIPAL MARKETS ABROAD.

Braby (Fredk.) & Co., Ltd.

(*See Advertisement Section, page* **188.**)

GALVANISED SHEET WORKS.

Export Office: 110, Cannon Street, London, E.C.4. *Works:* London, Deptford, Bristol, Liverpool, Glasgow and Falkirk. *Cable Address:* "Xenophon, London." *Codes:* A.B.C. (5th and 6th Editions) and Bentley's Complete Phrase, Marconi.

Bradford Colliery Co., Ltd. (The).

Head Office and Works: Bradford, Manchester, *Cable Address:* "Bradford Colliery," Manchester.

Bradford Dyers' Association, Limited.

Head Office: 39, Well Street, Bradford. *Cable Address:* "Dyers, Bradford." also Manchester and London. *Codes:* Bentley's. The Association comprises 38 large works in Yorkshire, Lancashire and Scotland.

AGENTS OVERSEAS:

China—7A, Kiangse Road, Shanghai. **India**—Laidlaw Buildings, Hornby Road, Bombay. **Egypt**—P.O. Box 2070, & 5, Midan Ataba-el-Khadra, Cairo.

Bradley & Foster, Ltd.

(*See Advertisement Section, page* **277.**)

IRON, STEEL, METALS AND MINERALS.

Head Office: Worcester Chambers, 105, Colmore Row, Birmingham. *Works:* Darlaston, Staffs.

Braime (T. F.) & Co., Ltd.

MAKERS OF PRESSED STEEL, ETC.

Head Office and Works: Ingham Street, Hunslet, Leeds. *Cable Address:* "Seamless, Leeds." *Codes:* A.B.C. (5th Edition), Lieber's, Engineering Telegraphic (2nd Edition), and Western Union.

AGENTS OVERSEAS:

Australasia—W. H. Maclennan, Lombard Buildings, 17, Queen Street, Melbourne. **Canada**—W. Armstrong, Armstrong Machinery and Plant, 232, Lemoine Street, Montreal. **Spain**—H. H. Walker, 84, Calle Balmes, Barcelona.

Braithwaite & Co.

STEEL BRIDGES, CONSTRUCTIONAL STEELWORK AND RAILWAY MATERIAL.

Head Office: 117, Victoria Street, Westminster, S.W.1. *Works:* West Bromwich and Newport (Mon.). *Cable Address:* "Bromkirk, London." *Codes:* A.B.C. (5th Edition), Bentley's.

OVERSEAS ADDRESS:

India—8, Clive Street, Calcutta.

Brandon Bridge-Building Co., Ltd.

Head Office and Works: Brandon Works, Motherwell, Scotland. *Cable Address:* "Girder, Motherwell." *Codes:* A.B.C. and A1.

Brentford Gas Company (The).

Head Office: High Street, Brentford, Middlesex. *Works:* Brentford, Southall and Staines.

Bridge (David) & Co., Ltd.

(*See Advertisement Section, page* **265.**)

INDIA RUBBER MACHINERY, MILLGEARING HYDRAULIC MACHINERY, ETC.

Head Office and Works: Castleton Iron Works, Castleton, Manchester. *Cable Address:* "Coupling, Castleton, Manchester." *Codes:* A.B.C. (4th and 5th Editions), Western Union, Bentley's Phrase.

Bridge (David) & Co., Ltd.—*continued.*

AGENTS OVERSEAS:

Ceylon and Southern India—Colombo Commercial Co., Ltd., London and Colombo. **Malay States**—Paterson, Simons & Co., Ltd., London, Penang, Klang, Singapore, etc. **Kelantan**—Duff Development Co., Ltd., London and Kuala Lebir. **Dutch East Indies**—Merrem and La Porte, Amsterdam, etc. **Uganda**—H.M. Syndicate, Kampala. **Mexico**—F. T. Berger & Cie. **S. Africa**—Thomas Barlow & Sons (S.A.), Ltd., Durban. **New Zealand**—Samuel Brown, Ltd., Wellington.

Bright (John) & Brothers, Ltd.

(*See Advertisement Section, page* **133.**)

COTTON GOODS, CARPETS, CANVAS, DRIVING BELTING, SPINNERS, DYERS, BLEACHERS AND FINISHERS.

Head Office: Rochdale. *Works:* Fieldhouse Mills, Rochdale. *Cable Address:* "Brights, Rochdale." *Code:* A.B.C. (5th Edition).

AGENTS OVERSEAS:

Canada—F. Rose, 106, Bay Street, Toronto; F. Fales, 61, Dock Street, St. John, N.B.; J. McRae, 63, Albert Street, Winnipeg; H. E. Walker, 600, Mercantile Building, Vancouver. **Australia**—Fielding & Chidgey, 49, Elizabeth Street, Melbourne; York Chambers, Market Street, Sydney; Stogdale & Sons, Pty., Ltd., 6 and 8, Elizabeth Street, Melbourne; York Street, Sydney. **New Zealand**—Murie & Ritchie, Ltd., 110, Wakefield Street, Wellington. **S. Africa**—P. H. Widdowson, P.O. Box 1002; H. Reg. Robinson, P.O. Box 439, Cape Town. **Egypt**—Morpurgo & Co., Cairo; Edgar & Oscar Morpurgo, Alexandria. **Constantinople**—Edouard Hanni. **Smyrna**—Les Successeurs des Heritiers d'Ed. Steiner. **Salonica**—Isac Jahiel. **Malta**—Almerico Bussutil, 22, Strada San Marco. **Holland and Belgium**—W. Wittkamp, Prinsengracht 403, Amsterdam; A Trompetter & Co., Damrak 99, Amsterdam, 24 Rue des Fripiers, Brussels; Louis Janssens, 16, Rue Basse des Champs, Ghent. **France**—Ch. Lecuyer and R. Haussaire, 45, Rue de Trevise, Paris. **Norway**—Joh. Mathiesen, Akersgaten 8, Christiania.

Brightside Foundry & Engineering Co., Ltd.

Head Office and Works: Wicker Iron Works, Sheffield *Cable Address:* "Castings, Sheffield." *Code:* A.B.C. (5th Edition).

Brinjes & Goodwin, Ltd.

MACHINERY AND PLANT FOR THE EXPLOSIVE, CHEMICAL, PRESERVING, PAINT AND INK TRADES.

Head Office: Cold Harbour, Poplar, London, E.14. *Works:* Poplar; and Reading Engineering Works, Reading.

Bristol Aeroplane Co., Ltd.

(*See Advertisement Section, page* **29.**)

Office and Works: Filton, Bristol. *Cable Address:* "Aviation, Bristol." *Codes:* A1, A.B.C., and Moreing.

Offices for North America: 512, Fifth Avenue, New York.

Bristol Brewery Georges & Co., Ltd. (The).

Head Office and Works: Bath Street, Bristol. *Cable Address:* "Georges, Bristol."

Bristol Tramways & Carriage Co., Ltd.

MAKERS OF HEAVY MOTOR CHASSIS.

Head Office: Clare Street House, Bristol. *Works:* Kensington Hill, Brislington.

Bristol United Breweries, Limited (The).

Head Office and Works: Lewins Mead, Bristol. *Tel. Address:* "Hops, Bristol."

Bristol Wagon & Carriage Works Co., Ltd.

(*See Advertisement Section, page* **91.**)

Head Office and Works: Lawrence Hill, Bristol. *London Offices:* 154, Suffolk House, Laurence Pountney Hill, E.C.4. *Garage and Showrooms:* Victoria Street, Bristol. *Cable Address:* "Wagon, Bristol." *Code:* A.B.C. (5th Edition).

Britannia Tube Co., Ltd.

MAKERS OF STEEL AND BRASS CASED TUBES.

Head Office: Glover Street, Birmingham. *Works:* Glover Street and Watery Lane, Birmingham. *Cable Address:* "Permanent, Birmingham." *Codes:* A.B.C., Lieber's, Western Union, Marconi.

AGENTS OVERSEAS:

France—R. Faguelin, 154, Rue de Faubourg St. Martin, Paris. **Belgium**—John Brown, Brussels.

British Abrasive Wheel Co., Ltd. (The).

ABRASIVE WHEEL MANUFACTURERS.

Reg. Office and Works: Tinsley, Sheffield. *Cable Address:* "Bulldog, Sheffield." *Code:* Western Union.

AGENTS OVERSEAS:

France—Hounsfield Fils, 8, Rue de Lancry, Paris. **Belgium**—Societe Anonyme Belge, Alfred Herbert, Rue de Laeken, 35A and 35B, Brussels. **Spain and Portugal**—Societe Anonyme Alfred Herbert, 47 Boulevard de Magenta, Paris. **Scandinavia**—Grew Blair & Co., Jernbanegade 3, Copenhagen. **Italy**—Dr. Giuseppe Guidini, Casella Postale 97, Turin. **Holland**—N. V. Technische Handel Maatschappij, (voorheen Jan Mulder), Stationsweg 47-49, Rotterdam. **Dutch East Indies**—Nederlandsch-Engelsche Technische Handel Maatschappy, Princessegracht, 21, The Hague, Holland. **New Zealand**—Flockton & Co., 138/142, Manners Street, Wellington.

British Aluminium Co., Ltd.

(*See Advertisement Section, page* **28.**)

Head Office: 109, Queen Victoria Street, London, E.C.4. *Works:* Foyers, Kinlochleven, Larne Harbour, Burntisland, Milton, Warrington, Stangfjord, Vigelands. *Cable Address:* "Cryolite, London." *Codes:* A.B.C. (5th and 6th Editions), Western Union, Lieber's, Bentley's.

British Aluminium Co., Ltd.—*continued.*

AGENTS OVERSEAS :

Canada—British Aluminium Co., Ltd., 265, Adelaide Street, W., Toronto. **Spain**—The Peninsular Engineering Co., Ltd., Alfonso XII, 24, Madrid ; Plaza Cataluna 6, Barcelona ; Espacion 5, Bilbao.

British-American Tobacco Co., Ltd.

(*See Advertisement Section, page* **240.**)

Head Office : Westminster House, 7, Millbank, London, S.W.1. *Works :* Liverpool & Southampton. *Cable Address :* "Vehicular, London." *Codes :* Bentley's, A.B.C., Lieber's.

British Automatic Co., Ltd. (The).

Head Office : 14, Appold Street, London, E.C.2. *Cable Address :* "Crayon, London."

AGENTS OVERSEAS :

Holland—Van Beuningenstraat 52-60, S'-Gravenhage. **Belgium**—27, Rue de L'Autonomie, Bruxelles (Midi).

British Cellulose & Chem. Mnfg. Co., Ltd.

(*See Advertisemext Section, page* **203.**)

MAKERS OF CELLULOSE ACETATE AND OTHER CHEMICALS.

Head Office : 8, Waterloo Place, London, S.W.1. *Works :* Spondon, near Derby ; Maybury Gardens, High Road, Willesden Green, N.W.10. *Cable Address :* "Cellutate, London." *Code :* Western Union.

British Chrome Tanning Co. (1909), Ltd.

CHROME GLAZED KID, CHROME BOX CALF, ETC.

Address : St. Andrew's Tannery, Northampton.

British Cotton & Wool Dyers' Assoc., Ltd.

(*See Advertisement Section, page* **82.**)

Head Office : 22, Cumberland Street, Manchester. *Works :* In Lancashire, Yorkshire and Scotland. *Cable Address :* "Cobra, Manchester." *Code :* A.B.C. (5th Edition).

AGENT OVERSEAS :

U.S.A.—Manley-Johnson Corporation, Wool Exchange Buildings, 260-266, West Broadway, New York.

British Drug Houses, Ltd.

Head Office : 22-30, Graham Street, City Road, London, N.1. *Works :* Wharf Road, City Road, London, N.1. *Cable Address :* "Tetradome, London." *Code :* A.B.C. (4th and 5th Editions).

AGENTS OVERSEAS :

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British Dyestuffs Corporation, Ltd.

(*See Advertisement Section, page* **140.**)

Head Office : Imperial House, Kingsway, London, W.C.2. *Works :* Ellesmere Port, Huddersfield, Manchester. *Cable Addresses :* "Levinstein, Manchester," "Magenta, Huddersfield," "Bridalta, Westcent, London." *Codes :* Marconi, Bentley's, A.B.C. (5th and 6th Editions), Lieber's.

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British East Africa Corporation, Ltd.

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British Electric Transformer Co., Ltd.

(*See Advertisement Section, page* **80.**)

Head Office and Works : Hayes, Middlesex. *Cable Address :* "Transfundo, Hayes, Middlesex." *Codes :* A.B.C. (5th Edition), Engineering (2nd Edition), Western Union.

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(*See Advertisement Section, page* **180.**)

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British Metal & Toy Manufacturers, Ltd.

(*See Advertisement Section, page* **220.**)

MAKERS OF METAL TOYS AND STAMPINGS.

Head Office: Audrey House, Ely Place, London, E.C. *Works:* Riversdale Works, Clissold Park, London, N. *Codes:* A.B.C. (5th Edition), Western Union, Marconi.

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British Portland Cement Manfrs., Ltd.

(*See Advertisement Section, page* **179.**)

Head Office: 4, Lloyds Avenue, London, E.C.3. *Works:* London and elsewhere. *Cable Address:* "Britporcem, London." *Codes:* A.B.C. (5th and 6th Editions), Bentley's, Marconi International, Western Union and Private.

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British Reinforced Concrete Engineering Co., Ltd. (The)—*continued.*

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Briton Ferry Steel Co., Ltd.

(*See Advertisement Section, page* **57.**)

Head Office: Briton Ferry, Glamorganshire. *Works:* Briton Ferry Steel Works and Albion Steel Works.

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Brooks (J. B.) & Co., Ltd.

(*See Advertisement Section, page* **26.**)

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Brotherton & Co., Ltd.

(*See Advertisement Section, page* **208.**)

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(*See Advertisement Section, page* **103.**)

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Brown Bayley's Steel Works, Ltd.

(*See Advertisement Section, page* **62.**)

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Brown (John) & Co., Ltd.

(*See Advertisement Section, page* **231.**)

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Brush Electrical Engineering Co., Ltd.

(*See Advertisement Section, page* **117.**)

Head Office and Works: Falcon Works, Loughborough, Leicestershire. *London Office:* Maxwell House, 11, Arundel Street, Strand, W.C.2. *Cable Address:* "Falcon, Loughborough." "Magneto, London." *Codes:* A1, A.B.C., Lieber's, Western Union, Engineering, Bentley's.

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(*See Advertisement Section, page* **131.**)

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(*See Advertisement Section, page* **138.**)

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(*See Advertisement Section, page* **21.**)

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(*See Advertisement Section, page* **139.**)

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Burma Oil Co., Ltd.

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Head Office: 175, West George Street, Glasgow. *London Office:* Britannic House, 23, Great Winchester Street, E.C.2. *Works:* Rangoon, Burma. *Cable Addresses:* "Burmah, Glasgow," "Burmoilo, Ave, London," "Burmoil, Rangoon." *Codes:* Bentley's and Private.

AGENTS OVERSEAS:

India—Finlay Fleming & Co., Managing Agents; The Burmah Oil Co., Ltd., P.O. Box 181, Rangoon. General Manager in India: H. B. Heath Eves, 101, Clive Street, Calcutta.

Burt, Boulton & Haywood, Ltd.

(*See Advertisement Section, page* **205.**)

TIMBER IMPORTERS, TAR DISTILLERS AND CHEMICAL PRODUCTS.

Head Office: Salisbury House, London Wall, London, E.C.2. *Works:* Prince Regent's Wharf, Silvertown, London, E.; Royal Victoria Dock, London, E.; Burt's Wharf, Rotherhithe, London, S.E.; Eling Wharf, Totton, Southampton; Alexandra Dock, Newport (Mon.); Devonshire Dock, Barrow-in-Furness; Alexandra Dock, Grimsby; Greenland Dock, West Hartlepool; Port Tennant, Nr. Swansea. *Cable Address:* "Burboul, London." *Code:* A.B.C. (5th Edition), Lieber's, Western Union, New Zebra.

OVERSEAS ADDRESSES:

France—54, Rue Caumartin, Paris, (9E); Latresne. **Belgium**—Selzaete. **Spain**—Bilbao. **Latvia**—Riga.

Bush (W. J.) & Co., Ltd.

(*See Advertisement Section, page* **206.**)

MAKERS OF CHEMICAL PRODUCTS.

Head Office and Works: Ash Grove, Hackney, London, E.8. *Cable Address:* "Tangerine, London." *Codes:* A.B.C., Lieber's, Bentley's.

OVERSEAS BRANCHES:

Russia—Moscow. **Italy**—Messina. **France**—Paris and Grasse. **Australia**—Melbourne and Sydney. **Canada**—Montreal and Toronto. **U.S.A.**—W. J. Bush & Co., Inc., New York, Linden (N. J.), and Chicago.

REPRESENTATIVES IN ALL COUNTRIES.

Butler Machine Tool Co., Ltd. (The).

Head Office and Works: Victoria Ironworks, Halifax. *Cable Address:* "Butler, Halifax, England." *Codes:* A.B.C. (5th Edition), Lieber's, Marconi.

AGENTS OVERSEAS:

Associated British Machine Tool Makers, Ltd.:—**Brussels**—50, Rue Bara. **Madrid**—135, Calle de Atocha. **Milan**—Corso Porta Nuova, Angolo, via Parini, 31. **Rotterdam**—109, Oldenbarnevelstraat. **Paris**—11bis, Rue Torricelli (X711). **Buenos Aires**—796, Calle Peru. **Delhi**—3, Lothian Road, Kashmir Gate. **Australia**—Gibson, Battle & Co., Ltd., 585, Kent Street, Sydney, N.S.W. **S. Africa**—Henry S. Potter, Ltd., 26, Cullinan Buildings, Main Street, Johannesburg, Transvaal. **New Zealand**—Richardson, McCabe & Co., Ltd., 11, Grey Street, Wellington. **China**—Jardine, Mathieson & Co., Shanghai. **Copenhagen**—Grew, Blair & Co., 3, Jernbanegade. **Switzerland**—Swiss Machinery Import Co., Ltd., 24, Austellungstrasse, Zurich. **Brazil**—Jones Burton & Co., Avenida Rio Branco, 47, Rio de Janeiro. **Japan**—Takata & Co., Tokio.

Butler (Wm.) & Co. (Bristol), Ltd.

(*See Advertisement Section, page* **212.**)

TAR, ROSIN AND PETROLEUM DISTILLERS.

Head Office: St. Philips, Bristol. *Works:* Crew's Hole, Bristol; Upper Parting, Gloucester. *London Office:* 3, Goring Street, Bevis Marks, E.C. 3. *Cable Address:* "Butler, Bristol." *Code:* A.B.C. (4th and 5th Editions).

AGENTS OVERSEAS:

N.S.W.—Fassett & Johnson, Ltd., Sydney.

Butler (W.) & Co., Ltd.

BREWERS.

Head Office and Works: Springfield Brewery, Wolverhampton. *Cable Address:* "Butlers, Wolverhampton."

Buttons, Limited.

(*See Advertisement Section, page* **136.**)

BUTTONS, MILITARY ORNAMENTS, BUCKLES, ETC.

Head Office: Portland Street, Birmingham. *Works:* Portland Street, Warstone Lane, and Clissold Street, Birmingham. *Cable Address:* "Carlyle, Birmingham." *Code:* A.B.C. (5th Edition).

Buxton Lime Firms Company, Ltd.

LIME AND LIMESTONE PRODUCTS.

Head Office: Buxton, Derby.

Byass (Robt. B.) & Co., Ltd.

BLACKPLATE CIRCLES AND RECTANGLES FOR STAMPING AND ENAMELLING, STEEL SHEETS AND TERNEPLATES.

Head Office: Port Talbot, Glamorgan, S. Wales. *Works:* Margam & Mansel Works, Port Talbot, S. Wales. *Cable Address:* "Byass, Port Talbot." *Code:* A.B.C.

Bynea Steel Works, Ltd.

Head Office & Works: Loughor, Glam., S. Wales

C

Calder (James) & Co., Ltd.

MAKERS OF YEAST AND MALT EXTRACT.

Address: 10A, George Street, Edinburgh.

Calders, Ltd.

ALL CLASSES OF TIMBER.

Head Office: 10A, George Street, Edinburgh. *Works:* Perth, Dunkeld, Boness, Newcastle, Middlesborough, Immingham and Brandon. *Cable Address:* "Redlac, Edinburgh." *Code:* Zebra.

Calico Printers' Association, Limited.

(*See Advertisement Section, page* **143.**)

Head Office: St. James's Buildings, Oxford Street, Manchester. *Branch Offices:* 67-69, Watling Street, London, E.C.4; 4, West Regent Street and 102, Hope Street, Glasgow. *Cable Addresses:* "Print, Manchester," "Printalico, London." *Codes:* A.B.C. (5th Edition), Bentley's.

SELLING AGENCIES:

S. Africa—W. H. Shears, P.O. Box 566, Cape Town; E. L. Shears, P.O. Box 5239, Johannesburg; H. S. Hopkins, P.O. Box 39, Bulawayo. **Australia**—W. J. Gunning & Co., 93, York Street, Sydney, and 262, Flinders Lane, Melbourne. **New Zealand**—R. G. Rainger, New Zealand Insurance Co.'s Buildings, Queen Street, Auckland. **Canada**—E. Foster, 20, St. Nicholas Street, Montreal. **France**—G. H. Kipping, 48, Rue d'Hauteville, Paris. **Holland**—L. S. Content, Reguliersgracht 88, Amsterdam. **Denmark**—Ferd Gress, Niels Hemmingsensgade 4, Copenhagen. **Belgium**—Felix H. Devers, 1, Rue Plattesteen, Brussels. **Sweden**—Eric Blom, Jnr., & Co., Stockholm 16. **Norway**—Christian A. Hansen, Raadhusgaten 20, Christiania. **Switzerland**—Gaston Rueff, Loewenstrasse 24, Zurich.

SHOWROOMS ABROAD:

China—9, Avenue Edward VII., Shanghai. Representative: M. W. Bruce, P.O. Box 282, British Post Office, Shanghai. **Argentine**—Calle Victoria 1395, Buenos Aires. Representative: G. Anderton. **Egypt** 1a, Place de l'Opera, Cairo. Representative: C. Holt, P.O. Box 1376, Cairo. **British East Africa**—c/o Kettles-Roy & Dawson, Mombasa and Nairobi. **Singapore**—96, Robinson Road.

Callender's Cable & Construction Co., Ltd.

(*See Advertisement Section, page* **72.**)

MAKERS OF CABLES.

Head Office: Hamilton House, Victoria Embankment, London, E.C.4. *Works:* Belvedere, Erith, Kent and Leigh, Lancashire. *Cable Address:* "Callender, London." *Codes:* A.B.C., Western Union, Bentley's and Private.

AGENTS OVERSEAS:

Holland—Spuistraat 6 and 8, Amsterdam. **Spain**—Plaza de Cataluna 6, Barcelona; Alfonso XII, 24, Madrid. **India**—Killick Building, Home Street, Bombay. **Belgium**—Place de la Bourse (2, Rue Auguste Orts), Brussels. **Egypt**—Khedivial Buildings "B," Sharia Emad El Din, Cairo. **Norway**—Observatoriegaten 2B, Christiania. **Turkey**—40, Union Han, Galata, Constantinople. **Denmark**—9, Dronningens Tvergade, Copenhagen. **S. Africa**—86, Std. Bank Chambers, Commissioner Street, Johannesburg. **Australasia**—499-501, Bourke Street, Melbourne; 138, Murray Street, Perth, W.A.; 115, Clarence Street, Sydney; 11, Grey Street, Wellington, N.Z. **Italy**—Via A. Volta 11, Milan. **China**—43, Kiangse Road, Shanghai. **Sweden**—Kyrkog, 38, Gothenburg.

Callington (G. H.) & Co., Ltd.

MAKERS OF LADIES' AND MEN'S BOOTS AND SHOES.

Address: Highfield Works, Hinckley.

Calvert (William) & Sons, Limited.

MAKERS OF COTTON PIECE GOODS.

Head Office: Flats Mills, Walton-le-Dale, Preston. *Works:* Flats, India and Aqueduct Mills, Walton-le-Dale and Preston.

Campbell (J. & W.) & Co.

MAKERS OF MEN'S AND WOMEN'S WEAR.

Head Office: 137, Ingram Street, Glasgow. *Works:* Montrose Street, Glasgow, and Ingram Road, Leeds. *Cable Address:* "Ingram, Glasgow." *Code:* A.B.C.

OVERSEAS ADDRESSES:

Canada—721, Empire Buildings, Wellington Street, Toronto. **Newfoundland**—204, Water Street, St. Johns. **S. Africa**—Mercantile Buildings, Hout Street, Cape Town.

AGENTS OVERSEAS:

S. Africa—Messrs. Arnot & Gibson, Arnot Buildings, President Street, Johannesburg.

Campling (Gilbert), Ltd.

"The A.B.C. Skootamota."

Sales Depot: 1, Albermarle Street, Piccadilly, London, W.1. *Works:* Cowes, I.O.W., and S. Croydon, Surrey. *Cable Address:* "Skootamota," London, Cowes, Croydon. *Codes:* A.B.C. (5th Edition), Lieber's (5 Letter), Marconi.

Camrass (S.) & Sons, Ltd.

MAKERS OF READY-MADE CLOTHING.

Head Office and Works: Dorrington Road Mills, Leeds. *Cable Address:* "Smooth, Leeds." *Code:* A.B.C.

Canning (W.) & Co.

PLANT MACHINERY AND MATERIALS FOR ELECTRO PLATING, POLISHING, LACQUERING AND ENAMELLING METALS.

Head Office: Great Hampton Street, Birmingham. *London Office:* 77, St. John's Street, Clerkenwell, E.C.1.

Capper Pass & Son, Limited.

TIN, LEAD, COPPER, ETC.

Head Office and Works: Bedminster Smelting Works, Bristol. *Cable Address:* "Pass, Bristol." *Codes:* Lieber's, A.B.C. (4th and 5th Editions), Simplex.

Capsuloids (1909), Ltd.

DRUGS, DRUGGISTS' SUPPLIES AND SURGICAL APPLIANCES.

Head Office: 8A, Duke Street, Manchester Square, London, W. *Works:* 19, Seymour Mews, London, W. *Cable Address:* "Capsuloid, London." *Code:* A.B.C.

ADDRESSES OVERSEAS:

Canada—Capsuloid Co., Brockville, Ontario. **U.S.A.**—Capsuloid Co., Morristown, New York State.

Car & General Insurance Corp., Ltd.

(*See Advertisement Section, page* **30.**)

Head Office: 83, Pall Mall, London, S.W.1. *Cable Address:* "Insucar, Charles, London."

OVERSEAS ADDRESS:

Canada—Royal Exchange Building, Montreal.

Cargo Fleet Iron Co., Ltd.

Head Office and Works: Middlesbrough. *Cable Address:* "Carfleco, Middlesbrough." *Codes:* A.B.C. (5th Edition), Western Union & Lieber's.

AGENTS OVERSEAS:

France—Compagnie Furness, 7, Rue Scribe, Paris. **Holland**—Furness Shipping & Agency, Rotterdam. **Belgium**—Furness Shipping & Agency, India Building, 25, Quai Jordeans, Antwerp.

Carlton Main Colliery Co., Ltd.

Address: Nr. Barnsley, Yorks.

Carr & Co., Ltd.

MAKERS OF BISCUITS, CHOCOLATE AND CONFECTIONERY.

Head Office: Carlisle. *Works:* The Biscuits Works, Carlisle. *Cable Address:* "Carr, Carlisle." *Codes:* A.B.C. (5th Edition), Lieber's.

AGENTS IN ALL THE PRINCIPAL CITIES OF THE WORLD.

Carron Company.

PIG IRON, COKE, ETC., COLLIERY PROPRIETORS, IRONSTONE & LIMESTONE, MINE OWNERS, ENGINEERING WORK, ETC., IRONFOUNDERS.

Head Office and Works: Carron, Falkirk, N.B. *Cable Address:* "Carronade, Falkirk." *Code:* A.B.C. (5th Edition).

AGENTS OVERSEAS:

Australia—W. H. Howe, Box 875, G.P.O., Sydney. **S. Africa**—J. Goodyear, Box 181, Cape Town. **Argentine**—T. H. Bell, Viamonte 382, Buenos Aires. **Brazil**—Baggott, Maine & Co., Rua Alvares Penteado 62, Sao Paulo. **China**—Gordon & Co., Ltd., 110, Szechuen Road, Shanghai.

Carsons, Limited.

MAKERS OF CHOCOLATE AND CONFECTIONERY.

Head Office: Solway Street, Glasgow. *Works:* Barrowfield, Glasgow, and Shortwood, Glos., England. *Cable Address:* "Chocolates, Glasgow." *Code:* A.B.C. (5th Edition).

Cartland (James) & Son, Ltd.

NAVAL, MILITARY AND GENERAL BRASS FOUNDERS.

Head Office and Works: Great Western Brass Foundry, Birmingham.

Castner-Kellner Alkali Co., Ltd.

MAKERS OF CHEMICALS.

Head Office: 257, Royal Liver Buildings, Liverpool. *London Office:* 15, Abchurch Lane, London, E.C.4.

Central Aircraft Company.

MAKERS OF AIRCRAFT.

Head Office: 179, High Road, Kilburn, London, N.W.6. *Works:* 179, High Road, Kilburn, N.W.6, and The Northolt Aerodrome, Northolt. *Cable Address:* "Aviduction, London." *Code:* A.B.C. (5th Edition).

Chadburn's (Ship) Telegraph Co., Ltd.

MAKERS OF SHIPS' TELEGRAPHS.

Address: Cyprus Road, Bootle, Lancs.

Chance Brothers & Co., Ltd.

(*See Advertisement Section, page* **178.**)

WINDOW GLASS, OPTICAL GLASS AND LIGHTHOUSES.

Head Office: Glass Works, Smethwick, Birmingham. *Works:* Smethwick, Birmingham, and Firhill, Glasgow. *Cable Address:* "Chance, Smethwick." *Codes:* A.B.C. (4th and 5th Editions), Lieber's, Bentley's.

AGENTS OVERSEAS:

Argentine—Laffitte & Co., Viamonte 636, Buenos Aires. **N. America**—Bogardus Wickens, Ltd., Vancouver. **S. Africa**—Wm. Young, P.O. Box 565, Cape Town. **Cuba**—F. G. Salichs, P.O. Box 930, Havana. **Egypt**—Ditta Egidio Lombardi Boccia, P.O. Box 89, Alexandria. **India**—Wilson & Co., 5-8, Jehangir Street, Georgetown, Madras. **Bolivia**—Mason Brothers, & Co., Oruco.

Chance & Hunt, Ltd.

MAKERS OF CHEMICALS.

Sales Office: 61-62, Gracechurch Street, London, E.C.3. *Works:* Oldbury, Wednesbury and Stafford. *Cable Address:* "Amonicid, London." *Codes:* A.B.C. (5th Edition), Bedford MacNeill, Cosmopolitan, Western Union, Bentley's (Mining Edition).

Chaplin (W. H.) & Co., Ltd.

WINES, SPIRITS AND LIQUEURS.

Head Office: 48, Mark Lane, E.C.3. *Vaults and Warehouses:* Tower Hill, London, E.C.3. *Cable Address:* "Winechap, London." *Codes:* A.B.C. (5th and 6th Editions) and Lieber's.

OVERSEAS ADDRESS:

France—Chateau Malescot, Margaux.

Chatwood Safe Company, Ltd. (The).

(*See Advertisement Section, page* **197.**)

MAKERS OF SAFES AND STRONG ROOMS FOR BANKS.

Head Office and Works: Foundry Street, Bolton. *Cable Address:* "Chatwood, Bolton." *Codes:* A.B.C. (5th Edition), Marconi.

AGENTS OVERSEAS:

Holland—Landre & Glinderman, Engineers, Amsterdam. **Egypt**—Allen Alderson, 2, Rue de la Poste, Alexandria, and also of Cairo. **Straits Settlements,**—Wm. Jacks & Co., Singapore. **Turkey**—William Edwards & Sons, Constantinople. **India**—F. W. Barlow, Esq., 14-16, Green Street, Bombay.

Chesterfield Tube Company, Ltd.

Head Office: 6, Austin Friars, London, E.C. *Works:* Chesterfield, Derbyshire. *Cable Addresses:* "Tubes, Chesterfield," "Tuchestaco, London." *Codes:* Western Union, A.B.C. (5th Edition).

Chilworth Gunpowder Co., Ltd.

(*See Advertisement Section, page* **253.**)

Head Office: Bank Buildings, St. James's Street, London, S.W.1. *Works:* Chilworth, Surrey, and Blackbeck, Lancashire. *Cable Address:* "Westfield, London." *Codes:* A.B.C. (5th Edition), Bentley's, Western Union.

AGENTS OVERSEAS:

Australasia—Elder Smith & Co., Ltd., Adelaide; Dalgety & Co., Ltd., Melbourne; Mason Bros., Ltd., 102, Clarence Street, Sydney; E. Porter & Co., Auckland, N.Z.; J. Duthie & Co., Ltd., Wellington, N.Z.; Dalgety & Co., Ltd., Dunedin, N.Z.; Elder Smith & Co., Ltd., Fremantle; W. Hart & Sons, Launceston, Tasmania; Brabant & Co., Brisbane, Queensland. **S. Africa**—Steel Murray & Co., Durban, Natal. **India**—Ewart Latham & Co., Bombay; Ewart Ryrie & Co., Karachi; Best & Co., Ltd., Madras. **Argentine**—J. Banham & Son, Buenos Aires.

Chloride Electrical Storage Co., Ltd.

MAKERS OF ELECTRICAL ACCUMULATORS.

Head Office and Works: Clifton Junction, near Manchester. *Cable Address:* "Chloridic, Pendlebury." *Codes:* A1, A.B.C. (5th Edition), Lieber's, Bentley's Phrase.

AGENTS OVERSEAS:

Australasia—E. H. Sharpe, 315-321, Pitt Street, Sydney, N.S.W.; Gibson Battle & Co., 535, Kent Street, Sydney, N.S.W.; Sutherland & Ashman, 379, Flinders Street, Melbourne; Engineering Supply Co. (Australia), Edmund & Charlotte Streets, Brisbane; Unbehaun & Johnstone, 100, Currie Street, Adelaide; Chas. Atkins & Co., Ltd., 894, Hay Street, Perth, W.A.; Andersons, Ltd., Canterbury Foundry, Christchurch. **S. Africa**—Representative, A. Pope, c/o Standard Bank, Cape Town; Jenkins & Co., 12-14, Greenmarket Square, Cape Town. **India**—Representative, W. H. Denby, P.O. Box 382, Bombay; Chloride Electrical Storage Co., P. Box 382, Bombay; Chloride Electrical Storage Co., P. Box 513, Calcutta. **Argentine**—Agar Cross & Co., Ltd., Cassilla de Correo 497, Buenos Aires. **Holland**—Agents: N. V. Electricitects Maatsehappy Electrostoom, Postbus 301, Rotterdam. **Norway**—Agent: Herr F. Sonnichsen, 69-71, Munkiedamsveien, Kristiania. **France**—Agent: Mons. H. Crochat, 131, Boulevard Ney, Paris.

Chorley & Pickersgill, Ltd.

PRINTERS (LETTERPRESS AND LITHOGRAPHIC) AND BOOKBINDERS.

Head Office and Works: The Electric Press, Leeds.

Church & Co.

MAKERS OF BOOTS AND SHOES.

Head Office: Duke Street, Northampton. *Works:* Duke Street and St. Edmund's Road, Northampton. *Cable Address:* "Walkinease, Northampton." *Codes:* A.B.C. (5th Edition), and Lieber's.

AGENTS OVERSEAS:

Egypt—Hickson & Thomas, P.O. Box 644, Cairo. **S. Africa**—R. H. Hutchings, P.O. Box 485, Cape Town. **Canada.**—R. D. Ayling, Room 212, Pacific Building, 23, Scott Street, Toronto.

Churchill (Chas.) & Co., Ltd.

(*See Advertisement Section, page* **271.**)

MAKERS OF MACHINE SHOP EQUIPMENT AND SMALL TOOLS.

Head Office: 9-15, Leonard Street, London, E.C.2, *Works:* Broadheath, Manchester; Fawley Road, Tottenham, etc. *Cable Address:* "Opodeldoc, London." *Code:* Lieber's (5 Letter).

Clark (Robt. Ingham) & Co., Ltd.

(*See Advertisement Section, page* **244.**)

MAKERS OF VARNISHES AND ENAMELS.

Head Office: Walter House, Bedford Street, W.C.2. *Works:* West Ham Abbey, Stratford, E.15. *Cable Addresses:* "Pearline, Westrand, London." Works, "Oleotine, Strat." London. *Code:* A.B.C. (5th Edition).

AGENTS OVERSEAS:

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Clark, Son & Morland, Ltd.

SHEEPSKIN RUGS & MATS, PERAMBULATOR RUGS & CANOPIES, SKINS AND LEATHER MOTOR CLOTHING, ETC.

Head Office and Works: Glastonbury, Somerset. *Cable Address:* "Morland, Glastonbury." *Code:* A.B.C. (Code 5).

AGENT OVERSEAS:

Canada—Jas. B. Jamieson, 108, Wellington Street West, Toronto.

Clarke, Chapman & Co., Ltd.

ENGINEERS, BOILER MAKERS, ETC.

Head Office and Works: Victoria Works, Gateshead. *Cable Address:* "Cyclops, Gateshead." *Codes:* A.B.C. (4th and 5th Editions), A1, Engineering (1st and 2nd Editions), Lieber's, Broomhalls, Moreing, and Neils, Watkins, Western Union and Private.

Clarke, Chapman & Co., Ltd.—*continued.*

AGENTS OVERSEAS:

Australasia—A. R. Hislop, Victoria Street, Wellington, N.Z.; A. R. Hislop, Hobson Buildings, Fort Street, Auckland; Fyvie & Stewart, Collins House, 360-366, Collins Street, Melbourne, Victoria; T. M. Goodall & Co., Ltd., 303-305, Kent Street, Sydney; A. E. Leplastrier & Co., Circular Quay East, Sydney (Watertube Boilers). **Canada**—William C. Wilson & Co., 21, Camden Street, Toronto. **S. Africa**—Blane & Co., P.O. Box 435, Johannesburg. **Egypt**—Sayer & Colley, 31, Savoy Chambers, Cairo. **Denmark**—M. Clausen, 47, Havnegade, Copenhagen. **Norway** N. M. Magnussen, Fearnley & Eger, P.B. 223, Christiania. **Holland**—Kam Bros., Van Hogendorpsplein 7, Rotterdam; Technisch Bureau voor Econonische Stoompruductie, Westerstraat N. 26B, Rotterdam (Watertube Boilers). **Belgium**—P. J. Goetbloet, 20, Avenue Du Sud, Antwerp. **Sweden**—Jean Drakenberg, Arsenalsgatian 5c, Stockholm; Corin & Linder, Lilla Bommen 2, Holmia, Gothenburg. **Finland**—Hugo Lindfors, 2, Vestra Hamngatan, Helsingfors. **Russia**—Thos. Firth & Sons, P.O. Box 754, Odessa; F. W. Riches, 9th Line, House 44, Vassilli Ostroff, Petrograd. **Italy**—D. C. Tdone, P.O. Box 459, Trieste; Ditta Salvatore Raineri, 3, Piazza delle Vigne, Genova. **Greece**—A. Z. Kairis, 85c, Odoa Mavromichali, Athens. **Argentine**—Roberts & Suarez, 721, Belgrano 729, Buenos Aires. **Japan**—Dr. T. Matsuo, D.E. 170, Harajuku, Awoyama, Tokio. **France**—Pierre Taconet, Boite Postale 322, Havre; Emile Bodin, Cours Lieutaud, 113, Marseille; Ed. & H. Kerr, 8, Rue de l'Heronniere, Nantes. **Brazil**—W. Mitchell, Ruo Theophilo Ottani 39, Rio de Janeiro. **Spain**—Spanish Trading Co., Isaac Peral 17, Cadiz.

Clarke (Stephenson) & Co.

COLLIERY PROPRIETORS.

Head Office: 4, St. Dunstan's Alley, London, E.C. *Cable Address:* "Stephenson Clarke, London." *Codes:* Marconi, Watkins, Universal Shipping, A.B.C. (5th Edition).

AGENT OVERSEAS:

Denmark—J. L. Andersen, Odense.

Clay Cross Co., Ltd.

COAL, LIME AND IRON WORKS.

Head Office: Chesterfield.

Clay (Robert), Ltd.

COMMISSIONED DYERS.

Head Office: Cheadle, Cheshire.

Clayton & Shuttleworth, Ltd.

AGRICULTURAL MACHINERY, RAILWAY CARRIAGES AND WAGONS, STEEL FORGINGS AND CASTINGS, STEAM MOTOR VEHICLES AND CRUDE OIL ENGINES.

Head Office: Stamp End, Lincoln. *Works:* Stamp End, Abbey and Titanic Works, Lincoln. *Cable Address:* "Claytons, Lincoln." *Codes:* A.B.C. (4th and 5th Editions), A1, Lieber's, Abecedary, Bentley's, and Private.

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France—D. Duprat, 219, Boulevard de Bègles, Bordeaux; E. Brissaud, 24, Cours Emile-Zola, Lyon-Charpennes; Bompard & Cie., Rue Seguier 63, Nimes. **Italy**—Ing. A. Colorni & C., Via Palermo 8-10, Milan. **Greece**—M. C. Stamatopoulos Sons, Volo, Piraeus. **Portugal**—Portuguese Trade Corporation, Ltd., Rua Alecrim 45, Lisbon. **Spain**—Soc. Anon. Union Española de Explosivos, Villanueva 11, Madrid. **Belgium**—Valcke Frères, Bruxelles and Ostende. **Russia**—N. Helfferich-Sadet, Ltd., Charkow; R. & T. Elworthy (London), Ltd., Elisabethgrad. **Holland**—Boeke & Huidekoper, Kenaupark 15, Haarlem. **Sweden**—Aktiebolaget Andrew Hollingworth & Co., Stockholm. **India**—Heatly & Gresham, Ltd., Bombay and Calcutta. **Burmah**—Cowie Bros., & Co., Rangoon. **Dutch East Indies and Malay States**—Harrisons & Crosfield, Ltd., Batavia, Bandoeng, Kuala Lumpur, Medan, etc. **New Zealand**—Wellington, Auckland, Christchurch, Gisborne, Hamilton, Napier, Palmerston, No. Wairoa, N.B. **S. America**—J. & J. Drysdale & Co., Buenos Aires, Rosario, Bahia Blanca; Rose-Innes, Kay & Co., Valparaiso. **S. Africa**—Malcomess Suhr & Co., Ltd., East London, Port Elisabeth, Durban, etc.

Clayton, Son & Co., Ltd.

GASHOLDERS, GAS PLANT, BOILERS, STEEL STRUCTURAL WORK.

Head Office: Moor End, Hunslet, Leeds. *London Office:* 5, Victoria Street, London, S.W.1. *Works:* Moor End, and Pepper Road, Hunslet. *Cable Address:* "Gas, Leeds." *Codes:* A.B.C. (5th Edition), Lieber's, Standard, Bentley's.

Cleeves' Western Valleys Anthracite Collieries, Ltd.

(*See Advertisement Section, page* **34.**)

ANTHRACITE COAL.

Head Office: Swansea. *Collieries:* Crosshands, Tirydail, Llandebie, Gellyceidrim, Cwmgorse, Cawdor. *Cable Address:* "Nudicaul" or "Activity, Swansea. *Codes:* Private and A.B.C. (5th Edition).

Clement Talbot, Ltd.

MAKERS OF AUTOMOBILES, ETC.

Head Office: Barlby Road, London, W.10.

Cleveland Bridge & Engineering Co., Ltd.

(*See Advertisement Section, page* **185.**)

Head Office and Works: Darlington. *Cable Address:* "Cleveland, Darlington." *Codes:* A.B.C. (5th Edition), Western Union, and Bentley's.

Cliffe Mills Co., Ltd.

(*See Advertisement Section, page* **3.**)

MAKERS OF WORSTED AND COTTON PIECE GOODS.

Head Office: 27-35, Swaine Street, Bradford, Yorks. *Works:* Great Horton, Bradford. *Cable Address:* "Service, Bradford." *Codes:* A.B.C. (5th Edition), Marconi International.

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Clough (Robert).

(*See Advertisement Section, page* **255.**)

MOHAIR, ALPACA AND HOSIERY YARNS, WORSTED FABRICS, AND RAINPROOF CLOTHS.

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(*See Advertisement Section, page* **246.**)

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(*See Advertisement Section, page* **247.**)

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Components, Limited.

(*See Advertisement Section, page* **27.**)

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(*See Advertisement Section, page* **10.**)

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Address: Consett, Co. Durham.

Consolidated Signal Co., Ltd.

(*See Advertisement Section, page* **92.**)

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(*See Advertisement Section, page* **43.**)

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(*See Advertisement Section, page* **260.**)

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Cookson & Co., Limited.

(*See Advertisement Section, page* **130.**)

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(*See Advertisement Section, page* **165.**)

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(*See Advertisement Section, page* **237.**)

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(*See Advertisement Section, page* **19.**)

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(*See Advertisement Section, page* **84.**)

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Head Office: Swansea.

D

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(*See Advertisement Section, page* **15.**)

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(*See Advertisement Section, page* **38.**)

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(*See Advertisement Section, page* **102.**)

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Dawson (Joseph).

(*See Advertisement Section, page* **151.**)

MAKERS OF WOOLLEN TOPS.

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(*See Advertisement Section, page* **4.**)

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Delta Metal Co., Ltd.

(*See Advertisement Section, page* **122.**)

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(*See Advertisement Section, page* **209.**)

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(*See Advertisement Section, page* **169.**)

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(*See Advertisement Section, page* **219.**)

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(*See Advertisement Section, page* **154.**)

Head Office and Works: Teams Rope Works, Gateshead. *Cable Address:* "Dixon, Gateshead." *Codes:* A.B.C. (5th Edition), Western Union, Marconi International.

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(*See Advertisement Section, page* **225.**)

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E

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France—G. O. Hackett, 6, Rue de la Folie Mericourt, Paris. **Roumania**—Bancotescu & Nicolau, Strada Steli 4, Bucarest. **Greece**—P. A. Dimas, Rue Karori 13B, Athens. **Turkey**—Eustratiades Bros., Yeni Kutchuk Han 5-8, Galata, Constantinople. **Denmark**—H. P. Strenberg, Holbergsgade 17,1, Copenhagen K. **Italy**—J. B. Autheman, Piazza Umanitaria 1, Milan. **Australia**—T. K. Steanes, 192, Castlereagh Street, Sydney. **Canada**— Gault McCombe & Co., 137, McGill Street, Montreal. **Egypt**—A. Palacci & Co., P.O. Box 696, Cairo. **S. America**—O. Pini, 1385, Calle Rivadavia, Buenos Aires. **Russia**—R. Kabatnik, 1, Boulevard de France, Odessa. **Norway**—Carl B. Prosch, Christiania. **Sweden**—Lionel Davidson, Stockholm.

East Lancashire Paper Mill Co., Ltd.

Head Office and Works: Church Street, Radcliffe, Nr. Manchester. *Cable Address:* "Sulphite, Radcliffe."

Ebbw Vale Steel, Iron & Coal Co., Ltd.

(*See Advertisement Section, page* **282.**)

Head Office and Works: Ebbw Vale, Monmouthshire, England. *London Office:* 122, Cannon Street, E.C.4. *Cable Addresses:* "Company Ebbw Vale, England," "Furnaces, London." *Codes:* Lieber's, A.B.C. (5th Edition), Bentley's and Marconi (International).

AGENTS OVERSEAS:

Australia—Frank Wilson, Sons, & Co., 7, A.M.P. Chambers, Perth; Couche, Calder & Co., 140-146, Queen Street, Melbourne; Cleghorn, Hopkins & Co., Ltd., Petries Bight, Brisbane; D. J. Fowler, Ltd., Box 391, G.P.O., Adelaide. **S. Africa**—Browns, Ltd., Progress Lane, Cape Town. **Canada**—Francis Hankin & Co., Ltd., Coristine Building, Montreal. **Norway**—Hjalmar Minde & Co., Christiania. **Sweden**—Gustaf Bauer, Vasagaten 5, Stockholm. **France**—W. D. Jermine, 12, Rue Hippolyte, Lebas, Paris.

Edison Swan Electric Co., Ltd.

(*See Advertisement Section, page* **77.**)

Registered Office: 123-125, Queen Victoria Street, E.C.4. *Works:* Ponders End, Middlesex. *Cable Address:* "Ediswan, Enfield." *Codes:* Western Union, A.B.C. (5th Edition).

AGENTS OVERSEAS:

Australia—58, Clarence Street, Sydney; 368, Little Collins Street, Melbourne; 32-34, Adelaide Street, Brisbane.

Edkins (Charles) & Sons, Ltd.

(*See Advertisement Section, page* **297.**)

MAKERS OF BUTTONS.

Head Office and Works: Friday Bridge Works, Birmingham. *Cable Address:* "Edkins, Birmingham."

Edmonds (George), Limited.

(*See Advertisement Section, page* **172.**)

GILT JEWELLERY, TEA INFUSERS, AND LADIES' HAND-BAG FRAMES.

Head Office and Works: Soho Hill Works, Birmingham. *Cable Address:* "Reciprocal, Birmingham." *Code:* A.B.C. (5th Edition).

AGENTS OVERSEAS:

Canada—C. F. Ross, Room 414, Foy Buildings, Toronto. **Australia**—J. E. Bartleet Perry, 353, Flinders Lane, Melbourne. **Italy**—Erneste Locher, Viale Umberto 4, Milan. **S. Africa**—W. F. Brittain, Industry Buildings, Cape Town. **France**—M. Ach, 89, Rue Turbigo, Paris. **Greece**—J. A. Salachas, Syra. **Switzerland**—D. Barnett, 15, Rue de Malagnou, 15, Geneva.

Electric Construction Co., Ltd.

(*See Advertisement Section, page* **119.**)

MAKERS OF ELECTRICAL MACHINERY AND SWITCH GEAR.

Head Office: Dashwood House, 9, New Broad Street, London, E.C.2. *Works:* Bushbury, Wolverhampton. *Cable Address:* "Quantity, London." *Codes:* A.B.C. (5th Edition), A1, Lieber's, Western Union, Marconi's and Bentley's.

OVERSEAS ADDRESS:

Australia—360-366, Collins Street, Melbourne.

Electrical Apparatus Company, Ltd.

(Incorporating Bray, Markham & Reiss, Ltd.)

(*See Advertisement Section, page* **75.**)

ELECTRICITY METERS AND ELECTRICAL MOTOR CONTROL AND SWITCH GEAR.

Head Office: Vauxhall Works, South Lambeth Road, London, S.W.8. *Works:* Vauxhall, Wandsworth, St. Albans and Walthamstow. *Cable Address:* "Elapratus, Vaux, London." *Codes:* A.B.C. (5th Edition), and Marconi International.

AGENTS OVERSEAS:

Holland—Berg & Burg, Amsterdam. **S. Africa**—J. W. Saaler, 9-10, Trust Buildings, Loveday Street, Johannesburg; P.O. Box, 305, Buluwayo; P.O. Box 400, Durban. **New Zealand**—J. Burns & Co., Auckland. **Australia**—Homewood & O'Neill, 172-174, William Street, Melbourne. **India**—Jessop & Co., 93, Clive Street, Calcutta, also Delhi and Rangoon. **Norway**—H. Ovrevik, Lodin Leppsgate 1, Bergen. **China**—Burtenshaw & Co., Hankow. **Japan**—C. J. Healing & Co., Tokio. **Switzerland**—P. Luder, Ingenieur, Burgdorf.

Electric & Ordnance Accessories Co., Ltd. (The).

PORCELAIN INSULATORS FOR ELECTRICAL PURPOSES.

Works: Havelock & Shelton Potteries, Broad Street, Hanley, Stoke-on-Trent.

Electro-Bleach & By-Products Ltd.

BLEACHING POWDER, SODA CRYSTALS, CAUSTIC SODA, HYPOSULPHITE OF SODA, CHLORINE AND SALT.

Head Office and Works: Middlewich, Cheshire. *Cable Address:* "Electro, Middlewich." *Codes:* Lieber's, A.B.C. (4th and 5th Editions) and Marconi (Vol. 1, 5 Letter).

Electro-Mechanical Brake Co., Ltd.

Address: Moor Street, West Bromwich.

Ellerbeck Collieries, Ltd.

COAL OWNERS.

Head Office: 3, King Street, Wigan, Lancs. *Collieries:* Coppull, Lancashire.

Elliott's Metal Co., Ltd.

COPPER AND BRASS TUBES, PLATES, WIRE, RODS, ETC.

Head Office and Works: Selly Oak Works, Birmingham. *Codes:* Lieber's, A.B.C. (5th Edition), Bentley's.

Elliott's Metal Co., Ltd.—*continued.*

AGENTS OVERSEAS:

Australia—G. Lodge & Co., 109, Pitt Street, Sydney (N.S.W.). **Holland**—H. C. Ferron, 915, Prinsengracht, Amsterdam. **Norway**—Ch. Moller, Jun., 65, Post Box, Christiania. **Denmark**—Alfred Tveede, 21, Vester Voldgade, Copenhagen.

Ellis (B.) & Co.

MAKERS OF BOOTS AND SHOES.

Head Office: Clyde Street, Leicester. *Works:* Clyde Street, and Erskine Street, Leicester. *Cable Address:* "Elysian, Leicester." *Codes:* A.B.C. (5th Edition), Marconi International.

Ellison (George).

MAKERS OF ELECTRIC CONTROL GEAR.

Head Office and Works: Perry Barr, Birmingham. *Cable Address:* "Induction, Birmingham." *Codes:* Western Union, Lieber's, Engineering, Private.

AGENTS OVERSEAS:

France—Florent Neirincks, 12 bis, Rue de Picpus, Paris XII. **Holland**—Ingenieurs Bureau "Econoom," Zutphen. **Denmark**—Elektricitets Aktieselskabet Protector, Havnegade 11, Copenhagen. **Italy**—Romano Donnini & Co., Via Plinio 16, Milan. **Switzerland**—F. Burri, c/o Fr. Sauter, Angensteinerstr. 32, Basel. **Russia**—Hugh Ledward, Post Box 455, Moscow. **S. Africa**—Griffin Engineering Co., Ltd., 94, Main Street, Johannesburg. **Australia**—N. Guthridge, Ltd., Equitable Buildings, George Street, Sydney. **New Zealand**—Carrick Wedderspoon & Co., 94A, Hereford Street, Christchurch. **India**—H. L. Rochat & Co., Ravelin Street, Hornby Row, Bombay. **Chile**—Jones Robson & Co., 575, Calle Bandera, Santiago.

Elmfield Mill Manufacturing Co.

MAKERS OF WOOLLEN AND WORSTED GOODS.

Head Office and Works: Elmfield Mills, Bramley, Nr. Leeds.

AGENT OVERSEAS:

Australia—John Thompson, 317, Collins Street, Melbourne.

Elton Cop Dyeing Co., Ltd.

(*See Advertisement Section, page* **47.**)

BLEACHERS, DYERS AND SIZERS OF YARNS IN THE COP, CHEESE OR BEAM; ALSO SPINNERS OF COTTON AND WOOLLEN MIXTURE HOSIERY YARNS.

Head Office and Works: Bury, Lancashire. *Cable Address:* "Cops, Bury." *Codes:* A.B.C. (5th Edition) and Bentley's.

Empire Paper Mills, Ltd.

MAKERS OF PAPER OF ALL DESCRIPTIONS.

Address: Ingress Abbey Mills, Greenhithe, Kent. *London Address:* 34-40, Ludgate Hill, London, E.C.4.

Empsall & Firth, Ltd.

(*See Advertisement Section, page* **232.**)

MAKERS OF LADIES' DRESS GOODS.

Head Office and Works: Eastwood Mills, Bradford. *Cable Address:* "Copal, Bradford." *Codes:* A.B.C. (5th Edition) and Marconi.

AGENTS OVERSEAS:

Canada—E. J. Powell, Empire Building, 64, Wellington Street, W., Toronto. **France**—A. Laya, 21, Rue d'Aboukir, Paris. **Italy**—G. Gallinari, Via Corroccio 10, Milano. **Belgium**—F. C. Lancaster, Rue l'Etuve 28, Brussels. **Norway**—E. Gregers, Christiania **Denmark**—Johs. Juhl, Vestervolgade 104, Copenhagen. **S. America**—Henry Bachem, 251, Calle Florida, Buenos Aires. **Australia**—A. E. Wittey, 374, George Street, Sydney.

Emsley (J.) & Co., Ltd.

STUFF, WOOLLEN, WORSTED, SILK AND COTTON GOODS.

Head Office and Works: West Bowling Shed, Bradford, Yorks. *Cable Address:* "Perfect, Bradford."

Enfield Cycle Co., Ltd. (The).

Head Office and Works: Hewell Road, Redditch. *Cable Address:* "Cycles, Redditch." *Codes:* A.B.C. and Bentley's.

Agents in all principal Countries of the World. Address of representatives in any territory given on request.

English Crown Spelter, Ltd.

MAKERS OF SPELTER.

Head Office and Works: Port Tennant, Swansea. *Cable Addresses:* "Crown, Swansea," "Spelter, London."

English Electric Co., Ltd.

(*See Advertisement Section, page* **120.**)

Head Office: Queen's House, Kingsway, London, W.C.2. *Works:* Dick, Kerr Works, Preston; Ordnance Works, Coventry; Phoenix Works, Bradford; Siemens Works, Stafford; Willans Works, Rugby. *Cable Address:* "Enelectico, London." *Codes:* Bentley's, Western Union, A.B.C. (5th Edition), Lieber's.

BRANCH OFFICES IN ALL THE PRINCIPAL CENTRES IN THE BRITISH EMPIRE AND FOREIGN COUNTRIES.

English Margarine Works, Ltd.

MAKERS OF MARGARINE.

Head Office and Works: Broad Green, Nr. Liverpool.

English Sewing Cotton, Ltd.

Head Office: National Buildings, St. Mary's Parsonage, Manchester.

English Velvet & Cord Dyers' Assn., Ltd.

Head Office: 30, Princess Street, Manchester.

Eno (J. C.), Ltd.

(*See Advertisement Section, page* **238.**)

MAKERS OF ENO'S FRUIT SALT.

Head Office: Blackfriars House, New Bridge Street, London, E.C.4. *Works:* "Fruit Salt" Works, Pomeroy Street, New Cross, London, S.E.14. *Code:* A.B.C. (5th Edition).

AGENTS OVERSEAS:

Federated Malay States—Harrisons & Crosfield, Ltd., Kuala Lumpur. **China**—W. A. Farley, 1, The Bund, Shanghai. **India**—Hopes, Ltd., 4, Council House Street, Calcutta. **Canary Isles**—Bautista & Martinon, Las Palmas. **Canada & U.S.A.**—Harold F. Ritchie & Co., Toronto and New York. **Australia**—The British Harold F. Ritchie & Co., Ltd., Sydney. **Sweden**—A. E. Wahlberg, Sandsvall. **Belgium**—A. Wartel, 9, Rue Boure, Brussels.

Erebus Manufacturing Co., Ltd.

LOCKS FOR HOUSES, SHIPS, MOTORS, CARRIAGES AND OTHER DOORS, ALSO DOOR AND WINDOW FITTINGS.

Address: Charles Holland Street, Willenhall, Staffs.

Evans, Sons, Lescher & Webb, Ltd.

(*See Advertisement Section, page* **207.**)

MAKERS OF CHEMICALS, DRUGS, ETC.

Head Office: 56, Hanover Street, Liverpool. *Works:* Pharmaceutical Laboratories and Drug Mills, 29, Fleet Street, Liverpool; Bacteriological Laboratories and Drug Farms, Crofton Lodge, Higher Runcorn, Cheshire; Chemical Works, Ellesmere Works, Runcorn, Cheshire. *London Office:* 60, Bartholomew Close, E.C. 1. *Cable Address:* "Basilio." *Codes:* Marconi, A1 Code, A.B.C. (5th & 6th Editions), Bentley's, Lieber's.

Evans (William).

MAKERS OF BOOTS AND SHOES.

Head Office and Works: Ashleigh Shoe Works, Leicester.

Ewart (William) & Son, Ltd.

FLAX AND HEMP YARN SPINNERS AND LINEN MANUFACTURERS AND BLEACHERS.

Head Office: 17, Bedford Street, Belfast. *Works:* Crumlin Road Spinning Mills and Weaving Factory, Belfast; Glenbank Bleach Green, Ballysillan, Co. Antrim; Mountain Mill, Ligoniel, Belfast. *Cable Address:* "Ewarts, Belfast." *Codes:* Lieber's, A1, A.B.C. (5th Edition), Century, Western Union.

OVERSEAS ADDRESSES:

U.S.A.—115-117, Franklin Street, New York. **France**—8, Citè d'Hauteville, Paris.

AGENTS OVERSEAS:

Denmark—Victor Binder, Osterbrogade 150, Copenhagen. **Canada**—McIlroy & Weeks, 1,015, New Birks Building, Montreal. **Australasia**—Stogdale & Sons, Pty., Ltd., Sydney, Melbourne and Adelaide; William Sewell, Auckland.

Excelsior Wire Rope Co., Ltd.

Head Office and Works: Cardiff. *Cable Address:* "Ropes, Cardiff." *Codes:* A.B.C. (5th Edition), Marconi, Hamilton's.

AGENTS OVERSEAS:

S. Africa—Flint & Epton, Loveday Street, Johannesburg. **Italy**—Grace Bros., S.A.I., Palazza Nuova Borsa 91-92, Genoa. **France**—J. Jacob & Son, 58, Rue Taitbout, Paris; Manley Bendall & Co., 15, Rue de Tivoli, Bordeaux; Le Societe des Ateliers Lorentais Siege Social, 56, Rue de la Victoria, Paris. **Belgium**—Burnyeat & Brotherton, Antwerp; Henri Lauwereins, Ostend; J. Jacob & Son, Scaldis Buildings, Antwerp. **Algeria**—Edmond Simon, 2, Rue Champlain, Algiers. **Spain**—M. Emilio, Fernandez Arnaez, Ferrol, Corruna and Vigo; Calderon Hermanos, Apartado 157, Seville. **Norway**—A. S. Bengtson & Co., Skippergaten 19, Christiania. **Canada**—The British Manufacturers' Corporation, Ltd., Rogers Building, Vancouver. **Sicily**—Leo Rand & Co., Palermo.

Explosives Trades, Ltd.

(*See Advertisement Section, pages* **84** *and* **121.**)

Head Office: 6, Cavendish Square, London, W.1. *Works:* Ardeer Factory, Stevenston, Ayrshire, Scotland, etc. *Cable Address:* "Explomerge, Wesdo, London."

THIS COMPANY IS FORMED BY THE AMALGAMATION OF THE FOLLOWING FIRMS:

Alliance Explosives Co., Ltd.
Australian Explosives & Chemical Co., Ltd.
Wm. Bennett, Sons, & Co., Ltd.
Bickford Smith & Co., Ltd.
Birmingham Metal & Munitions Co., Ltd.
British Explosives Syndicate, Ltd.
British South African Explosives Co., Ltd.
British Westfalite, Ltd.
W. Brunton & Co.
Cotton Powder Co., Ltd.
Curtis's & Harvey, Ltd.
E. C. Powder Co., Ltd.
Eley Bros., Ltd.
Elterwater Gunpowder Co., Ltd
King's Norton Metal Co., Ltd.
Kynoch, Ltd.
Kynoch-Arklow, Ltd.
National Explosives Co., Ltd.
New Explosives Co., Ltd.
Nobel's Explosives Co., Ltd.
Patent Electric Shot Firing Co., Ltd.
Roburite & Ammonal, Ltd.
Schultze Gunpowder Co., Ltd.
Sedgwick Gunpowder Co., Ltd.
W. H. Wakefield & Co., Ltd.

F

Fabricless Products Limited.

(*See Advertisement Section, page* **153.**)

MILLINERY PLAITS, HATS, MATS, SCARVES, SHAWLS, ETC., AND ADVERTISING TYING TAPES.

Head Office and Works: Abbey Road, Park Royal, Willesden, N.W.10. *Cable Address:* "Fabricless, Harles, London."

Fairbairn Lawson Combe Barbour, Ltd.

JUTE, FLAX AND HEMP TEXTILE MACHINERY AND MACHINE TOOLS.

Head Office: Leeds. *Works:* Hope Foundry, Leeds; Wellington Foundry, Leeds; Falls Foundry, Belfast. *Cable Address:* "Foundries, Leeds."

Faire Bros. & Co., Ltd.

(*See Advertisement Section, page* **147.**)

SMALLWARES, ELASTIC FABRICS, BOOT MERCERY, ETC.

Head Office: Rutland Street, Leicester. *Works:* St. George's Mills, Leicester, and Borrowash, Derbyshire. *Cable Address:* "Faire, Leicester." *Codes:* A.B.C. (4th, 5th and 6th Editions), Lieber's, Western Union, Premier, Marconi International Code, Bentley's (5 Letter Code).

ADDRESSES & AGENTS OVERSEAS:

Sydney—Faire Bros. & Co., Ltd., 39, Queen Victoria Buildings, George Street. **Melbourne**—Faire Bros. & Co., Ltd., 2, Fink's Buildings, Elizabeth Street. **Christchurch**—Robt. Malcolm, Ltd., 79, Lichfield Street. **Dunedin**—Robt. Malcolm, Ltd., Moray Place. **Wellington**—Robt. Malcolm, Ltd., Mercer Street. **Auckland**—Robt. Malcolm, Ltd., Albert and Wellesley Streets. **Port Elizabeth**—Davies, Gnodde & Smyth, 1, Strand Street. **Bombay**—F. A. Filmer & Co., Gaiety Buildings, Hornby Road. **West Indies**—J. F. Webber, Port of Spain, Trinidad. **Norway**—Hermod Riis, Grev Wedels Plass 4, Christiania. **Roumania**—Carol Kirschen & Co., Str. Smardan 4, Bucharest. **Malta**—Gambin & Casolani, 152, Strada Zecca, Valetta. **Holland**—C. J. Wijtenburg, 2 de Emmastraat 172, The Hague; Jos. Maassen, Koestraat 123, Tilburg. **France**—Vallobra & Mercier, 66 & 68, Faubourg Poissonniere, Paris (Xe); A. Montalvan, 122, Rue de Rivoli, Paris. **Denmark**—Adolf Berendt, St. Kongensgade 36-38, Copenhagen, K. **Sweden**—Anglo-Amerikanska Import A. B. Skeppsbron 3, Gothenburg.

Fairfield Shipbuilding & Engineering Co., Ltd. (The).

SHIPBUILDERS AND ENGINEERS.

Head Office and Works: Fairfield Works, Govan, Glasgow. *Registered Office:* 9, Victoria Street, Westminster, London, S.W.1. *Cable Addresses:* "Fairfield, Glasgow," and "Kentigern, London." *Codes:* Globe Standard and A.B.C.

Fairrie & Co., Ltd.

MAKERS OF REFINED SUGAR.

Address: 238-246 and 253, Vauxhall Road, Liverpool.

Fergusson (N. G.) & Co., Ltd.

IRON AND MANGANESE ORES.

Address: 13, St. Helen's Place, London, E.C.3.

Ferodo, Ltd.

MAKERS OF FERODO BRAKE AND CLUTCH LININGS.

Head Office and Works: Sovereign Mills, Chapel-en-le-Frith, Derbyshire. *Cable Address:* "Friction, Chapel." *Code:* A.B.C. (5th Edition).

AGENTS OVERSEAS:

Paris, Brussels, Copenhagen, Milan, Barcelona, Melbourne, Calcutta, Rio de Janeiro, Johannesburg.

Ferranti, Limited.

ELECTRICITY METERS, POWER TRANSFORMERS AND SWITCHBOARD INSTRUMENTS.

Head Office and Works: Hollinwood, Lancashire. *Cable Address:* "Ferranti, Hollinwood." *Codes:* A.B.C., Bentley's, Western Union, Lieber's.

AGENTS OVERSEAS:

Australia—Noyes Bros. (Sydney), Ltd., 115, Clarence Street, Sydney; Noyes Bros. (Melbourne), Propy, Ltd., 499-501, Bourke Street, Melbourne; J. R. W. Gardam, 138, Murray Street, Perth. **Brazil**—Martins & Sant 'Anna, Rua Direita No. 7, Sao Paulo. **Canada**—The Ferranti Electrical Co. of Canada, Ltd., 26, Noble Street, Toronto; Corner Langside and Notre Dame Avenue, Winnipeg; 704, Unity Buildings, Montreal. **Chile**—Martin Bros., Casilla 181, Valapraiso. **Denmark**—V. Andersen, Kultorvet 2, Copenhagen. **Finland**—Rasmus Hoyer, 30 Fabiansgatan, Helsingfors. **France**—Paul Testard, 46, Rue de Londres, Paris. **Holland**—Staal & Co., Looijersgracht 10, Amsterdam. **India**—Callenders Cable & Construction Co., Ltd., Killick Buildings, Home Street, Fort, Bombay; 5, Mangoe Lane, Calcutta. **Italy**—Ing. Giorgio Vita, Via Principe Amedeo, 42, Rome. **Japan**—L. J. Healing & Co., 24, Uneme-choi Kyobashi-ku, Tokio; 155, Kami Sanchome, Soneyak, Kitaku, Osaka. **New Zealand**—Arthur D. Riley & Co., Engineers and Importers (Head Office), P.O. Box 513, Wellington; P.O. Box 511, Dunedin; P.O. Box 218, Auckland. **Portugal**—F. Street & Co., Ltd., 156, Rua do Poco dos Negros, Lisbon; 64, Rua de Sa da Bandeira 68, Oporto. **S. Africa**—(Meters and Transformers), Rice, Wilson & Herd (P.O. Box 930), 86, 87, 88, 96, Standard Bank Chambers, Commissioner Street, Johannesburg; (Switchboard Instruments), Bartle & Co., Loveday House, Loveday Street, Johannesburg. **Spain**—The Peninsular Engineering Co., Ltd., Plaza de Cataluna 6, Barcelona; Calle Estacion 5, Edificio de la Aurora, Bilbao; Alfonso XII, 24, Madrid.

Ferris & Co., Ltd.

MAKERS OF DRUGS, SURGICAL APPLIANCES, ETC.

Address: Union Street, Bristol.

Fielden Bros., Ltd.

COTTON SPINNERS AND MANUFACTURERS.

Head Office and Works: Waterside, Todmorden, Yorks.

Fielding & Platt, Ltd.

HYDRAULIC MACHINERY, GAS ENGINES, GAS PLANTS, REFINED AND CRUDE OIL ENGINES.

Head Office: Atlas Works, Gloucester. *London Office:* 73A, Queen Victoria Street, E.C. *Cable Address:* "Atlas, Gloucester." *Codes:* A.B.C. (5th Edition), A1, Lieber's.

Findlay (Alex.) & Co., Ltd.

STEEL ROOF AND BRIDGE BUILDERS AND STRUCTURAL ENGINEERS.

Head Office and Works: Motherwell, Scotland. *Cable Address:* "Findlay, Motherwell." *Codes:* A.B.C. (4th and 5th Editions).

Fine Cotton Spinners' & Doublers' Association, Ltd.

Address: St. James' Square, Manchester.

Finlay (James) & Co., Ltd.

(*See Advertisement Section, page* **141.**)

MAKERS OF COTTON GOODS.

Head Office: 22, West Nile Street, Glasgow. *Works:* Catrine, Ayrshire; Deanston, Perthshire. *Cable Address:* "Mercator, Glasgow." *Codes:* Bentley's, A.B.C. (5th Edition), Scotts'.

OVERSEAS ADDRESSES:

Calcutta, Bombay, Karachi, Colombo.

Finnigans, Ltd.

(*See Advertisement Section, page* **168.**)

MAKERS OF LEATHER GOODS.

Head Office: 123, Deansgate, Manchester. *Works:* 6-10, Lexington Street, London, and Brown Cross Street, Manchester. *Cable Address:* "Finnigans, London or Manchester." *Code:* A.B.C.

Firth (T. F.) & Sons, Ltd.

(*See Advertisement Section, page* **189.**)

CARPET AND RUG MANUFACTURERS.

Head Office: Clifton Mills, Brighouse, Yorkshire. *Works:* Clifton Mills, Brighouse, and Flush Mills, Heckmondwike. *Cable Addresses:* "Firth, Bailiff Bridge," and "Firth, Heckmondwike." *Codes:* Lieber's, A.B.C. (4th and 5th Edition), Anglo-American.

AGENTS OVERSEAS:

Canada—64, Wellington Street West, Toronto. **Australia**—E. J. Donoghue, P.O. Box 699, Melbourne. **S. Africa**—C. A. Stewart, P.O. Box 5593, Johannesburg. **Holland**—H. J. Lammerts, Heerengracht 58, Amsterdam. **Norway**—R. Billington, Kongensgt 33, Christiania. **Egypt**—M. Setton, P.O. Box 84, Cairo. **Sweden**—Bror. E. Svenssen, Regeringsgaten 43iii, Stockholm. **France**—G. Camille, 10, Rue d'Uzes, Paris. **Greece**—E. L. Manousso, Odos Kolocotroni 72, Piraeus. **Roumania**—Wilh. Gluck & Fiu, Str. St. Nicolae Selari, Bucarest. **Spain**—A. C. Deusto, San Francisco 29, Santander. **Denmark**—J. Birger Moller, Ostergade 40, Copenhagen. **New Zealand**—R. Malcolm, Ltd., 79, Lichfield Street, Christchurch, and at Auckland, Wellington and Dunedin. **Brazil**—T. M. David & Co., Rua Libero 126, Badaro, San Paulo. **Portugal**—Picarra, Peig & Cta., Rue do Crucifixo 2, Lisbon. **Italy**—Bertolotti & Co., Via Filadrammatici 3, Milan. **China**—Harvie, Cooke & Co., 3, Foochow Road, Shanghai. **Switzerland**—L. Wyler, 175, Avenue de la Nouville-Gare, Soleure. **Belgium**—F. Rombeau, 242, Avenue de la Couronne, Bruxelles. **Malta**—Hammer & Thomson, Strada. Saint Ursola 228. **Alsace**—Pickering & Co.

Firth (Thos.) & Sons, Ltd.

(*See Advertisement Section, page* **52.**)

STEEL MANUFACTURERS.

Head Office and Works: Norfolk Works, Sheffield. *Cable Address:* "Firth, Sheffield." *Codes:* A.B.C. (4th and 5th Editions), Lieber's (Standard and 5 Letter), Western Union (5 Letter), Engineering, A1, Standard Coded Lists (Vols. 4, 5, 6), Bentley's (5 Letter), Marconi, etc.

BRANCHES IN Melbourne, Sydney, Perth, Montreal, Toronto, Tokio, Paris, Liege, Zurich, Petrograd and Odessa.

AGENCIES IN Vancouver, Colombo, Shanghai, Hankow, Bombay, Calcutta, Rangoon, Karachi, Madras, Cairo, Mexico City, Johannesburg, Buenos Aires, Oruro, Antofagasta, La Paz, Lima, Callao, Piura, Payta, Singapore, Penang, Ipoh, Kuala Lumpur, New York, Cambridge (Mass.), Serbia, Greece, Copenhagen, Rotterdam, Genoa, Christiania, Bucharest, Moscow, Madrid, Gothenburg and Constantinople.

Fitter Bros.

(*See Advertisement Section, page* **192.**)

MAKERS OF BEDSTEADS, ETC.

Head Office and Works: Bedford Bedstead Works, 88, Pritchett Street, Birmingham.

Flather (W. T.), Ltd.

Head Office and Works: Standard Steel Works, Sheffield. *Cable Address:* "Flather, Sheffield." *Codes:* A.B.C. (5th Edition), Lieber's, Western Union, Marconi International, Motor Trade Telegram.

Fletcher (William) & Sons (Derby), Ltd.

Head Office and Works: Chaddesden Works, Nottingham Road, Derby.

Forbes, Abbott & Lennard, Ltd.

MAKERS OF TAR AND AMMONIA PRODUCTS.

Head Office: Shoreham-by-Sea, Sussex. *Works:* Shoreham-by-Sea, London and Rye. *Cable Address:* "Carbon, London." *Codes:* A1, A.B.C. and Lieber's.

Forster's Glass Co., Ltd.

MAKERS OF GLASS BOTTLES, JARS AND FOOD CONTAINERS.

Head Office and Works: Atlas Glass Works, St. Helens. *Cable Address:* "Froking, St. Helens." *Codes:* A.B.C. (5th Edition), Engineering Telegraph Code (2nd Edition).

Foster, Blackett & Wilson, Ltd.

Head Office: 70, Lombard Street, London, E.C. *Works:* Tyne Lead Works, Hebburn-on-Tyne. *Cable Address:* "Foswhite." *Code:* A.B.C. (5th Edition).

AGENTS OVERSEAS:

Holland—C. Van Kleef H. Mz., Sarphatipark 17, Amsterdam. **Sweden**—Ad. Soderberg, Vasagatan 5 B., Gotherburg. **Belgium**—Georges Ferreyra-Dohet, 135, Avenue Prudent Bols, Laeken-Brussels.

Foster (John) & Son, Ltd.

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GREY, COLOURED AND DYED COTTON CLOTHS.

Address: 31, Cooper Street, Manchester.

Fountain (George) & Son (1917), Ltd.

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Address: Haigh Colliery, Haigh, Nr. Barnsley.

Fowler (John) & Co. (Leeds), Ltd.

STEAM PLOUGHING MACHINERY, STEAM TRACTION ENGINES, ETC.

Head Office: 113, Cannon Street, London, E.C.4. *Works:* Hunslet, Leeds. *Cable Address:* "Steamplow, London." *Codes:* Bentley's, A.B.C. (5th Edition), A1, Engineering Telegraphic Code, Lieber's and Western Union.

OVERSEAS ADDRESSES:

Australia—388-390, Elizabeth Street, Sydney. **France**—2, Rue de la Varenne, Melun. **India**—York Building, Hornby Road, Bombay. **S. Africa**—Consolidated Buildings, Fox Street, Johannesburg. **Phillipine Islands**—P.O. Box 1064, Manila.

Fox (Samuel) & Co., Ltd.

MAKERS OF STEEL INGOTS, BILLETS, RAILS, RODS, ETC. COLLIERY PROPRIETORS.

Head Office and Works: Stocksbridge Works, Nr. Sheffield. *Cable Address:* "Fox, Deepcar." *Codes:* Western Union, A.B.C., etc.

AGENTS OVERSEAS:

France—Ad. Seghers, Rue Scribe, 11, Paris. **Japan**—Takata & Co., Tokio.* **Australia**—M. F. Bakewell, Collins House, 360, Collins Street, Melbourne.

* For Light Steel and Tool Steels.

Foyer Cigarette Company.

(*See Advertisement Section, page* **304.**)

Head Office: Oxford Road, Manchester. *Works:* Oxford Road and Whitworth Street, Manchester. *Cable Address:* "Foyer, Manchester."

Fricker's Metal Co., Ltd.

MANUFACTURERS OF ZINC OXIDE.

Head Office: Portland Road, Luton, Beds. *Works:* Portland Road and Langley Street, Luton, Beds. *Cable Address:* "Frickers, Luton."

Frodingham Iron & Steel Co., Ltd.

Head Office and Works: Scunthorpe, Lincs.

Frost (F. A.) & Sons.

FLOUR MILLERS.

Address: Steam Mills, Chester, and Ellesmere Port, Cheshire.

Fur Fabric Co., Ltd.

(*See Advertisement Section, page* **190.**)

PILE FABRICS, MANUFACTURERS, DYERS AND FINISHERS.

Head Office and Works: Carlisle Mills, Bradford. *London Address:* Central House, 39, Noble Street, E.C.2. *Telegrams:* "Imifur, Bradford," "Furangovel, Cent., London."

Furness, Withy & Co., Ltd.

(*See Advertisement on outside back cover.*)

STEAMSHIP OWNERS.

Head Office: Furness House, Billiter Street, London, E.C. *Cable Address:* "Welldeck, London." *Codes:* Scott's (10th Edition), Bentley's Complete Phrase.

OVERSEAS ADDRESSES:

Furness, Withy & Co., Ltd., New York, Philadelphia, Baltimore, Boston (Mass.), Newport News, Norfolk, Va. Montreal, Halifax (N.S.), St. John (N.B.), Sydney (C.B.), St. Johns (Newfoundland).

G

Garnett (G.) & Sons, Ltd.

(*See Advertisement Section, page* **2.**)

MAKERS OF WORSTED AND WOOLLEN PIECE GOODS.

Head Office: Valley Mills, Apperley Bridge, Nr. Bradford. *Works:* Castle, Greenside, and Valley Mills. *Cable Address:* "Garnett, Apperley Bridge." *Codes:* A.B.C. (3rd Edition) and Bentley's.

AGENTS OVERSEAS:

Canada—Wilson Angus & Dewar, 77, York Street, Toronto; Wm. Dick, 232, McGill Street, Montreal. **Australia**—D. S. Macphail & Sons, 38, York Street, Sydney (N.S.W.); Johnson, Garnett & Co., 138, Lichfield Street, Christchurch (N.Z.). **France**—Louis Voss & Mehaut, 69, Rue de Chabrol, Paris. **Norway**—Einar Michelsen, Kirksgaten 32, Christiania. **Sweden**—Thos. Jenner, Centralpalatsch 47, Stockholm. **Denmark**—F. W. Anderson, Grennergade 1-G1, Ment 2, Copenhagen. **U.S.A.**—Folkard & Lawrence, 19, Madison Avenue, New York.

Garrard & Co., Ltd.

GOLDSMITHS, SILVERSMITHS, JEWELLERS AND ALSO MANUFACTURERS OF GRAMOPHONE MOTORS AND PARTS AND ARTICLES OF PRECISION.

Head Office: 17, Grafton Street, London, W.1. *Works:* 1, 2, & 3, Avery Row, W.1, and Newcastle Street, Swindon, Wilts. *Cable Addresses:* "Empearl Piccy, London" and "Garrard, Swindon." *Code:* A.B.C. (5th Edition).

OVERSEAS ADDRESSES:

India—1-112, Dalhousie Street, Calcutta; Argyle House, The Mall, Simla.

Garrett (Richard) & Sons, Ltd.

(*Branch of Agricultural & General Engineers, Ltd.*)

STEAM ENGINE MANUFACTURERS.

Head Office: Central House, Kingsway, London, W.C.2. *Works:* Leiston, Suffolk. *Cable Address:* "Agroengic, Phone, London." *Codes:* A.B.C. (5th Edition) Western Union and Private.

Garrett (Richard) & Sons, Ltd.—*continued.*

OVERSEAS ADDRESSES :

India—Turner, Hoare & Co., Ltd., Superabag Road, Bombay ; Associated British Engineers, Ltd., 4, Hare Street, Calcutta. **Australasia**—73-81, Eagle Street, Brisbane ; 303-305, Kent Street, Sydney (N.S.W.) ; 519, Little Collins Street, Melbourne ; 883, Hay Street, Perth (W.A.).

Gas Light & Coke Company.

Head Office : Horseferry Road, Westminster, London, S.W.1.

Gas Lighting Improvement Co., Ltd.

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Head Office : Salisbury House, London Wall, London, E.C.2. *Works :* Pacific Wharf, Crows Road, West Ham, London, E.15. *Cable Address :* "Carburine, London."

OVERSEAS ADDRESS :

France—10, Rue Caumartin, Paris (9).

Gates (Ernest) & Co.

(*See Advertisement Section, page* **86.**)

MAKERS OF DRESS GOODS.

Head Office : Midland Buildings, Canal Road, Bradford. *Works :* Cross Roads Mills, Keighley ; Harden Mills, Nr. Bingley. *Cable Address :* "Primacy, Bradford." *Codes :* A.B.C. (5th Edition), Western Union (5 Letter Edition).

Gaunt & Hickman.

MAKERS OF LUBRICATING OILS AND GREASES.

Head Office and Works : British Oil Works, Wolverhampton. *Telegraphic Address :* "Oil, Wolverhampton." *Codes :* A.B.C. (5th Edition) and Marconi.

Gaunt (Reuben) & Sons, Ltd.

BOTANY (WORSTED) YARNS AND WOOLLEN AND WORSTED PIECE GOODS.

(1) *Worsted Spinners.*

Head Office and Works : Springfield Mills, Farsley, Yorks, England. *Cable Address :* "Gaunts, Farsley, England." *Code :* A.B.C. (5th Edition).

AGENTS OVERSEAS :

Norway—Oluf Berrum, Kristiania, P.B. 95. **Sweden**—Karl Gronwall, Regeringsgatan 40, Stockholm. **U.S.A.**—Elmer H. King, 146, Summer Street, Boston, Mass. **France**—Fernand Sartorius, 14, Rue de Paradis, Paris. **Switzerland**—A. F. Jauslin, Basle.

(2) *Manufacturers.*

Head Office and Works : Broom Mills, Farsley, Nr. Leeds, Yorks, England. *Cable Address :* "Reuben, Farsley." *Codes :* A.B.C. (5th Edition), Marconi.

AGENTS OVERSEAS :

New Zealand—John Gruar & Co., 69-71, Victoria Street, Wellington. **S. Africa**—W. J. Hutchins, P.O. Box 539, Cape Town. **Sweden**—Karl Gronwall, Regeringsgatan 40, Stockholm.

General Electric Co., Ltd.

(*See Advertisement Section, page* **79.**)

Head Office : 67, Queen Victoria Street, London, E.C.4. *Works :* Witton, Birmingham, London, Manchester, Salford, Lemington-on-Tyne, Coventry, Erith, Southampton. *Cable Address :* "Polyphase, London." *Codes :* A.B.C. (5th and 6th, 5 letter, Editions), Lieber's, Western Union (5 letter), Marconi's, Cole and Private.

FOREIGN AND COLONIAL BRANCHES.

France—General Electric de France, Ltd., 12, Rue Rodier, Paris. **Belgium**—General Electric Co., Ltd., 38-42, Rue d'Arenberg, Brussels. **China**—The General Electric Co., of China, Ltd., 1 & 2, Ningpo Road, Shanghai ; 2, Queens Building, Hong Kong ; 23, Tung Ting Road (British Concession), Hankow, with representation in Korea and Manchuria. **India**—The General Electric Co. (India), Ltd., 14, Old Court House Street, Calcutta ; 100, Armenian Street, Madras. **Australia**—British General Electric Co., Ltd., 257, Clarence Street, Sydney (N.S.W.) ; 590-590A, Bourke Street West, Melbourne (Victoria) ; General Electric Eng. Co., 203 to 207, Murray Street, Perth (W.A.) and Kalgoorlie. **New Zealand**—8, Willeston Street, Wellington, with agencies in Brisbane (Queensland) and Hobart (Tasmania). **Africa**—The British General Electric Co., Ltd., Corner of Loveday and Anderson Streets, Johannesburg ; 83-89, Castle Street, Cape Town, with agencies in Durban and Pietmaritzburg (Natal), and Salisbury and Bulawayo (Rhodesia). **Argentine**—Anglo-Argentine General Electric Co., Ltd., 1475-1483, Rivadavia (Plaza del Congreso), Buenos Aires, with correspondents in Monte Video (Uruguay).

AGENTS OVERSEAS :

Holland—N. V. Van Den Berg & Co.'s Metaalhandel, 163, Prinz Hendrik Kade, Amsterdam, with correspondents in the Dutch East Indies. **Chili**—Huth & Co., Valparaiso, with branches at Santiago and Concepion. **W. Indies**—Barbados Electric Supply Corporation, Ltd., Barbados. **Siam**—The Bangkok Dock Co., Bangkok. **Africa**—The Algerian Engineering Co., 107, Rue Michelet, Algiers. **Norway**—Technisk Co., Christiania. **Egypt**—Egyptian Engineering Stores, Alexandria. **Portugal**—Harker, Sumner & Co., 16, Largo de Porto Santo, Lisbon. **Spain**—Luna Marti y Garcia Spitzer, Ltd., Conde de Aranda 11, Madrid ; Luna y Marti, Ronda de San Pedro 49, Barcelona.

Gilbertson (W.) & Co., Ltd.

(*See Advertisement Section, page* **54.**)

STEEL, GALVANISED SHEETS, TINPLATES, ETC.

Head Office and Works : Pontardawe, Nr. Swansea. *Cable Address :* "Gilson, Pontardawe." *Codes :* A.B.C. (4th and 5th Edition) and A1.

AGENTS OVERSEAS :

Canada—Alexander Gibb, 1 & 2, St. Nicholas Building, 3, St. Nicholas Street, Montreal. **India**—W. O. B. Hutchison, P.O. 240, Calcutta. **Holland**—H. C. Ferron, Prinsengracht 916, Amsterdam. **Denmark**—A. Kirketerp & Schramm, Copenhagen.

Gilliland (John) & Co., Limited.

HOUSEHOLD AND FANCY LINENS, LINGERIE, BLOUSES, HANDKERCHIEFS.

Head Office: Ormeau Avenue, Belfast, Ireland. *Export Office:* 118, Fore Street, London, E.C. *Works:* Belfast. *Cable Address:* "Magnet, Belfast." *Code:* A.B.C. (5th Edition).

AGENTS OVERSEAS:

Norway—A. Rohlff, Wedels Plas, Christiania. **Sweden**—Torsten Nauckhoff, Stureplan 13, Stockholm. **Denmark**—Herr Fritzboeger, Kobemagergade, 22, Copenhagen. **Australia**—W. J. Cross, Camberwell, Melbourne. **New Zealand**—J. McEldowney, Hobson Street, Wellington. **Constantinople**—Maurice Hamburger, Post Box, Galata 46.

Ginder & Ginder.

DIAMONDS AND GEM RINGS.

Head Office and Works: Gem Buildings, 20, Hockley Hill, Birmingham. *Cable Address:* "Ringlets, Birmingham." *Codes:* A.B.C. (5th Edition) and Bentley's.

AGENTS OVERSEAS:

Canada—Ginder & Co., Excelsior Life Buildings, Toronto Street, Toronto. **New Zealand**—Westwood, Box 550, Christchurch. **China**—Burkill & Son, 2, Kiukiang Road, Shanghai; China Overseas Trading Co., Queen Road Central, Hong Kong. **India**—Walker & Co., P.O. Box 70, Madras; Grindlay & Co., Army Bankers, Calcutta.

Glendower Aircraft Co., Ltd.

Head Office: 12 & 14, Harrington Road, South Kensington, S.W.7. *Works:* Kew Gardens and North Finchley. *Cable Address:* "Glenacelle, London." *Code:* Marconi.

Glenfield & Kennedy, Ltd.

WATERWORKS FITTINGS, HYDRAULIC AND PUMPING MACHINERY, IRRIGATION SLUICES, ETC.

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OVERSEAS ADDRESSES:

India—Glenfield & Kennedy, Ltd., York Buildings, Hornby Road, Bombay. **Chili**—Glenfield & Kennedy, Ltd., Calle Haerfanos 1153, Santiago. AGENTS IN Argentine, Bolivia, Australia, Brazil, Belgium, China, Canada, Denmark, Dutch East Indies, Egypt, France, Holland, Italy, New Zealand, Norway, Near East, Portugal, S. Africa, Sweden.

Globe Refining Co., Ltd.

MAKERS OF EDIBLE FATS AND OILS.

Head Office and Works: Eugene Street, St. Judes, Bristol. *Cable Address:* "Refiners, Bristol." *Code:* A.B.C. (5th Edition).

AGENT OVERSEAS:

Canada—W. Y. Colclough, 259, Kingswood Road, Toronto.

Gloucester Railway Carriage & Wagon Co., Ltd.

(*See Advertisement Section, page* **89.**)

Head Office and Works: Gloucester. *London Office:* 1, Victoria Street, London, S.W.1. *Cable Address:* "Slater, Gloucester." *Code:* A.B.C.

Glover & Main, Ltd.

MAKERS OF GAS METERS, STOVES, ETC.

Head Office and Works: Gothic Works, Angel Road, Edmonton, N.18. *Cable Address:* "Gothic, London." *Code:* A.B.C. (5th Edition).

OVERSEAS ADDRESS:

Australia—333, Queen Street, Melbourne. AGENTS IN Scandinavia, Belgium, France, and other countries

Glover (W. T.) & Co., Ltd.

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Head Office and Works: Trafford Park, Manchester. *Cable Address:* "Cables, Manchester." *Codes:* A.B.C., Lieber's, Western Union, Bentley's, Marconi, and Glover's Private.

AGENTS OVERSEAS:

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MAKERS OF MEN'S, YOUTHS' AND JUVENILE CLOTHING.

Address: 4, Victoria Park Square, Green Street, Bethnal Green, London, E.2.

Goldsworthy (Thomas) & Sons.

(*See Advertisement Section, page* **256.**)

MAKERS OF EMERY, EMERY GLASS, ETC.

Head Office and Works: Britannia Emery Mills, Manchester. *Cable Address:* "Goldsworthy, Manchester." *Code:* A.B.C. (5th Edition).

AGENTS OVERSEAS:

Canada—Hutton & Co., Montreal. **Australia**—Empire Engineering Co., 350, George Street, Sydney. **Spain**—Manuel Simon Belenguer, Gran Via 18, Valencia. **New Zealand**—H. F. Moss, Ltd., 281, Princess Street, Dunedin. **Argentine**—N. Feinstein, 746, Talcahuano, Buenos Aires.

Gorse Galvanising Co., Ltd.

(*See Advertisement Section, page* **267.**)

BLACK STEEL SHEETS AND GALVANISED SHEETS.

Head Office: Dafen, Llanelly, S. Wales. *Works:* Gorse Galvanising Sheet Works. *Cable Address:* "Galvan, Llanelly."

Gossage (William) & Sons, Ltd.

MAKERS OF SOAP, GLYCERINE AND CHEMICALS.

Head Office: Widnes. *Works:* Soap Works, Widnes and Liverpool. *Cable Address:* "Gossage, Widnes." *Codes:* A.B.C. (4th and 5th Editions), Bentley's, Premier, Lieber's, Western Union, Gossages' Private.

Gossage (William) & Sons, Ltd.—*continued.*

OVERSEAS ADDRESSES :

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Grahame-White Company, Ltd.

AIRCRAFT AND AUTOMOBILE CONSTRUCTORS AND ENGINEERS, MOTOR BODY BUILDERS AND FURNITURE MANUFACTURERS.

Head Office and Works : London Aerodrome, Hendon, London, N.W.9. *London Office :* 12, Regent Street, London, S.W.1. *Cable Address :* "Volplane, Hyde, London." *Code :* A.B.C. (5th Ed.).

Graigola Merthyr Co., Ltd.

(*See Advertisement Section, page* **279.**)

COAL AND PATENT FUEL.

Head Office : 5, Cambrian Place, Swansea. *Works :* King's Dock, Swansea, and Clydach-on-Tawe. *Cable Address :* "Graigola, Swansea."

OVERSEAS ADDRESSES :

France—Societe Francaise Graigola Merthyr, 66, Rue Taitbout, Paris. **Italy**—Ditta De Sanna, Via Medina 24, Naples. **Algeria**—Societe Anglo-Algerienne Maritime et Commerciale Oran.

Gramophone Co., Ltd.

"HIS MASTER'S VOICE" GRAMOPHONES AND RECORDS.

Head Office and Works : Hayes, Middlesex. *Cable Address :* "Jabberment Hayes, Middlesex." *Codes :* A.B.C. (5th Edition), Lieber's, Western Union.

BRANCHES OVERSEAS :

Denmark—Skandinavisk Grammophon-Aktieselskab, Frihavnen, Copenhagen. **France**—Cie Francaise du Gramophone, 115, Boulevard Richard Lenoir, Place de la Republique, Paris. **Spain**—Compania del Gramofono, 56-58, Balmes, Barcelona. **Sweden**—Skandinaviska Grammophon-Aktiebolaget, Drottning Gatan No. 47, Stockholm. **Russia**—Gramophone Co., Ltd., 45, Nevsky Prospect, Petrograd ; No. 1, Solyanka, Solyanoi Dvor, Moscow ; 9, Golovinsky Prospect, Tiflis ; Nowy-Swiat, 30, Warsaw ; 33, Alexandrowskaya Ulitsa, Riga ; 11, Michailovskaya Ulitsa, Baku. **India**—Gramophone Co., Ltd., 139, Balliaghatta Road, Calcutta ; 7, Bell Lane, Fort, Bombay. **Belgium**—Cie Francaise du Gramophone, 51, Avenue de la Porte de Hal, Brussels.

Grane Manufacturing Co., Ltd.

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AGENT OVERSEAS :

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AGENTS OVERSEAS :

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Green (R. & H.) & Silley Weir, Ltd.

SHIP AND ENGINE REPAIRERS, BOILER MAKERS AND IRON AND BRASS FOUNDERS.

Office : Brunswick Hotel, Blackwall, London, E.14.

Greener (W. W.), Ltd.

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Head Office and Works : St. Mary's Row, Birmingham. *Cable Address :* "Greener, Birmingham." *Codes :* A.B.C. (4th and 5th Editions), Bentley's.

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AGENTS OVERSEAS :

Australia—W. F. Thompson, 405-407, Lonsdale Street, Melbourne. **Argentine**—The H. Plaut Trading Co., Lavalle, Buenos Aires. **S. Africa**—E. G. Higginson, Loveday Street, Johannesburg. **Chili**—Jones Robson & Co., Casilla 1880, Bandera 575, Santiago do Chile. **Brazil**—Panayotti & Co., Sao Paulo.

Greengate & Irwell Rubber Co., Ltd.

MAKERS OF INDIA RUBBER GOODS AND BALATA BELTING.

Works : Irwell Works, Mill Street, Ordsall Lane, Salford, Manchester. *Cable Address :* "Para, Manchester, Eng." *Codes :* A.B.C. (5th Edition), Western Union, Marconi.

AGENTS OVERSEAS :

Bombay—John E. Minnitt, Ltd., Ballard Road. **Sydney**—The Empire Engineering Supply Co., Ltd., Empire House, 259, Clarence Street. **Rio de Janeiro**—Whyte & Co., Avenida Rio Branco No. 117-121, Sala 19.

Greening (N.) & Sons, Ltd.

(*See Advertisement Section, page* **70.**)

WIRE WEAVERS AND WORKERS, AND METAL PERFORATORS.

Head Office and Works : Warrington. *Cable Address :* "Greenings." *Codes :* A.B.C. (5th Edition), A1. Telegraphic, Western Union Tel., Lieber's Tel.

Greenwood & Batley, Ltd.

(*See Advertisement Section, page* **74.**)

MAKERS OF MACHINERY, MACHINE TOOLS, ETC.

Head Office : 16, Great George Street, London, S.W.1. *Works :* Albion Works, Leeds. *Cable Address :* "Greenwood, Leeds." *Codes :* A1, A.B.C. (4th and 5th Editions), Lieber's, Western Union, Engineering, Bentley's and Marconi.

Gresham & Craven, Ltd.

LOCOMOTIVE AND RAILWAY ROLLING STOCK FITTINGS.

Head Office and Works: Ordsall Lane, Salford, Manchester. *London Office:* 110, Cannon Street, London, E.C.4. *Cable Address:* "Brake, Manchester." *Code:* A.B.C.

AGENTS OVERSEAS:

France—Walter Strapp, 15, Rue de Madrid, Paris. **Holland**—Th. H. M. De Grijs, 311, Rijswijkscheweg, The Hague. **Italy**—Giovanni Checchetti, Piazza Sicilia, 1, Milan. **Australia**—Adams & Co., 521-523, Collins Street, Melbourne. **India**—Heatly & Gresham, Ltd., 204, Hornby Road, Bombay; 6, Waterloo Street, Calcutta. **S. America**—Evans, Thornton & Co., 465, Calle Defensa, Buenos Aires. **S. Africa**—Jenkins & Co., 12-14, Greenmarket Square, Cape Town; 352, Smith Street, Durban; Ginsberg Chambers, Johannesburg.

Griffith (Henry) & Sons.

MAKERS OF JEWELLERY.

Head Office and Works: 131, Warstone Lane, Birmingham. *Cable Address:* "Jewellers, Birmingham." *Code:* A.B.C. (5th Edition).

Grout & Co., Ltd.

(*See Advertisement Section, page* **85.**)

MAKERS OF SILK GOODS (PIECE FABRICS).

Head Office: 35, Wood Street, London, E.C. *Works:* Great Yarmouth. *Cable Addresses:* (Works), "Grout, Great Yarmouth"; (Head Office), "Grout, London." *Code:* A.B.C. (4th and 5th Editions).

AGENTS OVERSEAS:

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Grovesend Steel & Tinplate Co., Ltd.

Head Office: Gorseinon, Nr. Swansea. *London Office:* 29, Great St. Helens, London, E.C. *Works:* Gorseinon, Pontarduluis, Garnant, Glanamman, and Briton Ferry. *Cable Addresses:* "Grovesend, Gorseinon," "Florally Led, London." *Codes:* A.B.C. (5th Edition) and Lieber's.

Guest, Keen & Nettlefolds, Ltd.

RAILS, PIG IRON, SHIP AND BOILER PLATES, BOLTS, NUTS, SCREWS, ETC.

Head Office: London Works, Nr. Birmingham. *Works:* Birmingham, Smethwick, King's Norton, West Bromwich, Dowlais, Cardiff, Cwmbran, Rogerstone.

AGENT OVERSEAS:

Australia—J. K. Merritt, Melbourne, Victoria.

Guy Motors, Ltd.

MAKERS OF MOTOR VEHICLES, COMMERCIAL AND TOURING.

Head Office and Works: Fallings Park, Wolverhampton. *Cable Address:* "Guymo, Wolverhampton." *Codes:* A.B.C. (5th Edition), Marconi, and Bentley's.

Gwynnes Ltd.

MAKERS OF CENTRIFUGAL PUMPING MACHINERY.

Head Office and Works: Hammersmith Iron Works, London, W.6. *Cable Address:* "Gwynne, London." *Codes:* A.B.C. (5th Edition), Bentley's, Western Union.

AGENTS OVERSEAS:

France—MM. L'Entente Industrielle, 20, Avenue Kleber, Paris. **Belgium**—The Anglo-Belgian Engineering Co., 37-39, Boulevard Anspach, Bruxelles. **Spain**—Jose Goenaga, Alameda Maguaredo, 5, Bilbao. **Portugal**—Granville, Hawkins & Co., Rua de Arsenal, 30, Lisbon. **Mesopotamia**—Strick & Scott & Co., Baghdad. **Federated Malay States**—Aylesbury & Nutter, Ltd., Ipoh, Perak. **India**—Marshall, Sons & Co. (India), Ltd., Bombay, Calcutta and Madras. **British East Africa**—The McMillan Estates, Nairobi. **S. Africa**—C. Butters & Co., 187, Exploration Building, Johannesburg. **Egypt**—The Associated British Manufacturers (Egypt), Ltd., Khedival Buildings, "B" Sharia Emad el Din, Cairo. **Mexico**—J. M. Zuriban y Cia Sen C. Apartado 10023, Mexico (D.F.) **Peru**—C. Butters & Co., Ltd., 643, Calle San Martin, Iquique. **Chili**—C. Butters & Co., Ltd., 84, Cassilla, Valparaiso. **Australia**—Smellie & Co., Brisbane; Denny Bros., Ltd., St. George's House, St. George's Terrace, Perth.

H

Hadfields, Ltd.

STEEL MANUFACTURERS, WAR MATERIALS, COLLIERY AND MINING REQUISITES, CRUSHING MACHINERY, RAILWAY AND TRAMWAY TRACK WORKS, ETC.

Head Office and Works: East Hecla Works and Hecla Works, Sheffield. *Cable Addresses:* "Hadfield, Sheffield," "Manganese, Sheffield." *Codes:* A.B.C. (4th and 5th Editions), Western Union, Lieber's, Engineering Telegraph (1st and 2nd Editions), Broomhall's Imperial Cypher, etc.

BRANCHES AND AGENTS OVERSEAS:

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Hadfields, Ltd.—*continued.*

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Haggie (R. Hood) & Son, Ltd.

(*See Advertisement Section, page* **261.**)

MANILLA AND HEMP ROPES AND WIRE ROPES AND BINDER TWINE.

Head Office: Akenside House, Newcastle-on-Tyne. *Works:* Willington, Quay-on-Tyne. *Cable Address:* "Haggie, Newcastle-on-Tyne." *Codes:* A.B.C. (5th and 6th Edition), Marconi International, Lieber's and Private.

Haighs (Oldham), Ltd.

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Halden (J.) & Co., Ltd.

(*See Advertisement Section, page* **125.**)

DRAWING AND SURVEYING INSTRUMENTS, DRAWING OFFICE MATERIAL AND FURNITURE, ENGINEERS' PHOTO-COPYING MACHINES AND PLANT, ENGINEERS' PHOTO PROCESSES.

Head Office: 8, Albert Square, Manchester. *Works:* Rowsley Works, Reddish, Nr. Stockport. *Cable Address:* "Halden, Manchester." *Codes:* A.B.C. (5th Edition) and Bentley's.

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Halesowen Steel Co., Ltd.

MAKERS OF BRIGHT DRAWN STEEL.

Head Office: Halesowen, Worcester.

Hall (B. J.) & Co., Ltd.

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Head Office: Chalfont House, Great Peter Street S.W.1. *Works:* Copier Works, Milborne Street, Hackney, N. *Cable Address:* "Inspect Vic., London."

Hall (J. & E.), Ltd.

(*See Advertisement Section, page* **23.**)

REFRIGERATING MACHINERY, HALLFORD PETROL MOTOR VEHICLES, ETC.

Head Office: 10, St. Swithin's Lane, London, E.C.4. *Works:* Dartford Ironworks, Kent, England. *Cable Addresses:* "Hallford, London," "Hallford, Dartford." *Codes:* A.B.C., Scott's, Western Union, Private.

AGENTS OVERSEAS:

Australia—Russell Rayson, 14, Queen Street, Melbourne; F. A. Henriques, Ltd., Perth; T. Mitchell & Co. (Proprietory), Ltd., Melbourne; Duncan & Fraser, Ltd., Adelaide; Larke Hoskins & Co., Ltd., Sydney. **New Zealand**—F. S. Greenshields & Co., Wellington. **Canada**—A. G. Kidston & Co., 17, St. John Street, Montreal. **Brazil**—Walter & Co., Rio de Janeiro. **India**—A. H. Wheeler & Co., Calcutta; Turner Hoare & Co., Ltd., Bombay; Martin & Co., Calcutta. **China**—Macdonald & Co., King's Buildings, Hong Kong; Representation of British Manufacturers, Ltd., Shanghai and Hankow. **Dutch Colonies**—Linteteves-Stokvis, Amsterdam; Harrisons & Crosfield, Ltd., Dutch East Indies. **Egypt**—Associated British Manufacturers (Egypt), Ltd., Khedival Buildings "B," Cairo. **S. Africa**—Sturrock & Co., Marshall Street, Johannesburg; Thos. Barlow & Sons, Durban. **Spain**—F. K. Mather, Calle Princesa, 20, Barcelona. **Straits Settlements**—Central Engine Works, Ltd., Singapore. **Near East**—Associated British Manufacturers (Near East), Ltd., 3, Kapnicarea Street, Athens; 97, Viitorului, Bucharest; Nez Michailova Ulitza, 21, Belgrade; 40-42, Union Han, Galata, Constantinople.

Hall & Earl.

MAKERS OF HOSIERY.

Head Office: Braunstone Gate, Leicester.

Hall & Pickles, Ltd.

MAKERS OF TOOL STEEL.

Head Offices: Port Street, Manchester. *Works:* Arundel Street, Sheffield. *Cable Address:* "Iron, Manchester." *Codes:* Western Union, A.B.C., Lieber's.

Hallamshire Steel & File Co., Ltd.

Head Office and Works: Neepsend, Sheffield.

Halliday (John) & Sons.

(*See Advertisement Section, page* **8.**)

MAKERS OF TEXTILE FABRICS.

Head Office and Works: Woodroyd Mills, Bradford, England. *Cable Address:* "Halliday, 3822, Bradford." *Codes:* Marconi International, A.B.C. (5th Edition), Lieber's Telegraphic.

AGENT OVERSEAS:

S. Australia—S. H. Pitman & Co Worando Buildings, Grenfell Street, Adelaide.

Hancock, Corfield & Waller, Ltd.

(*See Corfield, Ltd.*)

Hancock (William) & Co., Ltd.

BREWERS, BOTTLERS, WINE AND SPIRIT MERCHANTS AND MINERAL WATER MANUFACTURERS.

Head Office and Works: The Brewery, Cardiff.

Handley Page, Ltd.

AERONAUTICAL ENGINEERS.

Head Office and Works: Cricklewood, London, N.W.2. *Cable Address:* "Hydrophid, Crickle, London." *Code:* Bentley's.

OVERSEAS ADDRESSES:

Argentine—J. A. Hinds, Sarmiento 459, Buenos Aires. **Brazil**—Richard Whichello & Co., Rio de Janeiro. **Columbia**—Urquhart Carvalho & Co., Bogota. **Chile**—Balfour, Williamson & Co., Valparaiso. **China**—Pekin Syndicate, Ltd., Pekin. **India**—Handley Page Indo-Burmese Transport, Ltd., 16, Chowringhee, Calcutta. **Japan**—Sale & Frazar, Tokio. **Peru**—Peruvian Corporation, Ltd., Lima. **S. Africa**—Handley Page South African Transport, Ltd., Cape Town and Johannesburg. **Straits Settlements**—The Borneo Co., Singapore. **Uruguay**—E. Cooper & Co., Montevideo. **U.S.A.**—W. H. Workman, Biltmore Hotel, New York. **Venezuela**—Santiago Vegas, Caracas.

Hanger, Chattaway & Smith.

LADIES' BOOTS AND SHOES, MACHINE SEWN AND WELTED.

Head Office and Works: Western Road, Leicester. *Cable Address:* "Boots, Leicester."

Hardy Patent Pick Co., Ltd.

MINING TOOLS, STEEL, AND MINING MACHINERY.

Head Office and Works: Sheffield. *Cable Address:* "Hardypick, Sheffield." *Codes:* A.B.C. (4th and 5th Editions), A.I., Lieber's, Lieber's (5 Letter American Code), Engineering Telegraph, Universal Mining, Marconi International, and Private Codes.

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Harris & Sheldon, Ltd.

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Head Office and Works: Stafford Street, Birmingham. *Cable Address:* "Fittings, Birmingham." *Codes:* A.B.C. (5th Edition), Lieber's, Marconi International.

OVERSEAS ADDRESSES:

S. Africa—155, Marshall Street, Johannesburg; 94-98, Hout Street, Cape Town. **France**—39, Rue de Turenne, Paris.

Harrison & Co.

STAMPED BRASSFOUNDERS.

Head Office and Works: Bradford Street Works, Birmingham. *Cable Address:* "Remarkable." *Code:* A.B.C.

AGENTS OVERSEAS:

Australia—E. T. Miller, Sydney. **Italy**—Weiss & Stabilini, Milan. **S. Africa**—Torrance & Marcon, Cape Town. **Holland**—A. Appel, Amsterdam. **Spain**—Harry Walker, Barcelona.

Harrisons & Crosfield, Ltd.

(*See Advertisement Section, page* **202.**)

IMPORTERS OF TEA, RUBBER AND OTHER EASTERN PRODUCE; EXPORTERS OF PLANTATION SUPPLIES OF EVERY DESCRIPTION.

Head Office: 1-4, Great Tower Street, London, E.C.3. *Cable Address:* "Harricros." *Codes:* Bentley's, Western Union, A.B.C. (5th Edition) and Private.

BRANCHES AT Bandoeng, Batavia, Calcutta, Calicut, Cochin, Colombo, Kobe, Kuala Lumpur, Medan, Montreal, Quilon, Tandjong, Balei, Labuan, Bilik, Tangier.

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OVERSEAS ADDRESSES:

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Harrow-Bunn & Butler.

MAKERS OF FANCY AND PLAIN COTTON TEXTILES.

Head Office and Works: 23, George Street, Manchester. *Cable Address:* "Openwork, Manchester." *Code:* A.B.C.

AGENTS OVERSEAS:

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Hart Accumulator Co., Ltd.

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Head Office and Works: Marshgate Lane, Stratford, London, E.15. *Cable Address:* "Hartmossel, Stratford." *Codes:* A.B.C. (5th Edition), Bentley's.

Hartley (Wm. P.) (London & Aintree), Ltd.

MAKERS OF JAM, MARMALADE AND TABLE JELLIES.

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Harvey (G. A.) & Co. (London), Ltd.

ENGINEERS, METAL PERFORATORS, WIRE WEAVERS, SHEET METAL WORKERS, GALVANIZERS, ETC.

City Office: Suffolk House, Laurence Pountney Hill, London, E.C.4. *Works:* Woolwich Road, London, S.E.7. *Cable Address:* "Cheaper, London." *Codes:* A.B.C. (6th Edition), Lieber's (No. 5), Marconi International, Hamilton's Wire Code.

Harvey (G. A.) & Co. (London), Ltd.—*continued.*

AGENTS OVERSEAS :

Siam—S. Smith & Son (Siam), Ltd., Bangkok. **Russia**—British Engineering Company of Russia & Siberia, Ltd., Moika 58, Petrograd. **China**—Anglo-Chinese Engineers' Association, Ltd., 83, Chao Yung Ken, Peking, and at Shanghai, Hong Kong and Tientsin. **New Zealand**—A. C. Gillies & Co., 57, Ballance Street, Wellington. **Australia**—Corbett Mayo Pty, Ltd., Lawson House, 49, Clarence Street, Sydney, and at Melbourne.

Harwood (Richard) & Son, Ltd.

SPINNERS AND DOUBLERS OF FINE AND SUPER-FINE COTTON YARNS.

Head Office and Works: Brownlow Fold Mills, Bolton. *Cable Address:* "Lignum, Bolton." *Code:* Private.

AGENTS OVERSEAS :

France—Mons. Ehrhardt, 13, Faubourg Poissonniere, Paris; Mons. Gautier, 29, Rue Royale, Lyons. **Switzerland**—Mons. Keller, a Beckenhofstrasse 51, Zurich.

Haslams, Ltd.

MAKERS OF COTTON GOODS.

Head Office: Manchester. *Works:* Bolton. *Cable Address:* "Squirrels, Manchester." *Codes:* Western Union, A.B.C. (4th and 5th Editions), Bentley's.

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Canada—R. W. Paton, 58-64, Wellington Street West, Toronto; G. G. Robinson, 43, St. Sacrament Street West, Montreal. **France**—Ch. Hervieu, 12, Rue Paul-Lelong, Paris (Interieur); T. E. Mara, 8, Cite Trevise, Paris (Exportation). **Belgium**—Alfred Clement-Thys, 10, Avenue Zaman, Forest-lez-Brussels. **Portugal**—Alfredo da Fonseca, Rua Almada 59, Oporto; Francisco Leal, Rua de S. Juliao, No. 72-28, Lisbon. **Spain**—Fernando Gutierrez, Barco, 5, Madrid; Agustin Morello, Balmes, 55, Barcelona. **Italy**—H. Dowling, Via Ricardo Sineo, 3, Turin. **Sweden**—Eric Blom, Jr., & Co., Stockholm. **Norway**—Christian A. Hansen, Raadhusgaten, 20, Christiania. **Denmark**—Ivan Koppel, Holbergsgade, 18, Copenhagen. **Holland**—Henry Stall, Johann Verhulst Str., Amsterdam. **Finland**—Fritz Clement, Helsingfors. **Egypt**—Jeffery W. Eady, 10, Chareh Torguemane (P.O.B. 1078), Cairo. **S. Africa**—A. W. Macey, 96, St. Georges Street, Cape Town; P.O. Box 6571, 88, Eloff Street, Johannesburg. **Australia**—D. S. Macphail & Sons, Ltd., 38, York Street, Sydney (N.S.W.); 310, Flinders Lane, Melbourne. **S. America**—J. Addison Smith, Chacabuco 243, Buenos Aires; Luis Di-Vita, Calle Rio Branco, 1374, Monte Video. **Canary Islands**—Agustin Peñate, Arenas 18, Las Palmas.

Haunchwood Collieries, Ltd.

COLLIERY OWNERS.

Head Office: Nuneaton.

Hawkes (O. C.), Ltd.

MAKERS OF EVERY DESCRIPTION OF LOOKING GLASSES.

Head Office: Birmingham. *Works:* Globe Works, Bromsgrove Street, Birmingham. *Cable Address* "Hawkes, Birmingham." *Code:* A.B.C. (5th and 6th Editions), Bentley's, Marconi International.

AGENTS OVERSEAS :

Argentine—Charles A. Pope, Buenos Aires. **Brazil**—Baggot Maine & Co., Sao Paulo.

Hawkins (G. T.), Ltd.

(*See Advertisement Section, page* **171.**)

MAKERS OF BOOTS AND SHOES.

Head Office: Overstone Road, Northampton, England. *Works:* Waukerz Shoe Factory, Overstone Road, Northampton. *Cable Address:* "Waukerz." *Codes:* A.B.C. (5th and 6th Editions), Lieber's Standard, Marconi International.

Hawley (A. E.) & Co., Ltd.

(*See Advertisement Section, page* **166.**)

HOSIERY DYERS, BLEACHERS AND FINISHERS AND GENERAL DRY CLEANERS AND DYERS.

Head Office and Works: Sketchley Dye Works, Hinckley, Leicestershire. *Cable Address:* "Hawley, Hinckley, England."

Haworth (Richard) & Co., Ltd.

MAKERS OF COTTON GOODS.

Head Office: Dale Street, Manchester. *Works:* Egerton, Tatton, Ordsall & Throstle Nest on Manchester Ship Canal. *Cable Address:* "Spero, Manchester." *Codes:* Western Union, Bentley's, A.B.C. (4th and 5th Editions).

OVERSEAS BRANCHES AND AGENCIES :

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Hawthorn (R. & W.), Leslie & Co., Ltd.

(*See Advertisement Section, page* **39.**)

SHIPBUILDERS AND SHIP REPAIRERS. MANUFACTURERS OF MARINE ENGINES, BOILERS, LOCOMOTIVES, ETC.

Registered Office: St. Peter's Works, Newcastle-on-Tyne. *Works:* Shipyard, Dry Dock & Forge, Hebburn Shipbuilding Yard, Hebburn-on-Tyne; Marine Engineering Works, St. Peter's Works, Newcastle-on-Tyne; Locomotive Works, Forth Banks, Newcastle-on-Tyne. *Cable Address:* Shipyard, "Leslie, Newcastle-on-Tyne; Engine Works, "Hawthorns, Newcastle-on-Tyne"; Locomotive Works, "Locomotive, Newcastle-on-Tyne."

Hawthorn (R. & W.), Leslie & Co., Ltd.—*continued.*

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Italy—Ingr. Ugo F. Gregoretti, Largo Arenula 26, Rome. **Constantinople and Balkan States**—Associated British Manufacturers (Near East), Ltd., 40-42, Union Han, Galata, Constantinople, also branches at Athens, Bucharest and Belgrade. **Egypt**—Associated British Manufacturers (Egypt), Ltd., Khedival Building "B," Sharia Emad el Din, Cairo. **China**—Representation for British Manufacturers, Ltd., Shanghai and Hankow.

Head, Wrightson & Co., Ltd.

BRIDGE BUILDERS, ETC.

Head Office : Teesdale Ironworks, Thornaby-on-Tees. *Works :* Thornaby and Stockton-on-Tees. *Cable Address :* "Teesdale, Stockton-on-Tees." *Codes :* Lieber's, Western Union, Bentley's, A.B.C. (5th Edition).

OVERSEAS ADDRESSES :

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Hearth (James) & Co.

MAKERS OF HOSIERY.

Head Office : Newarke Street, Leicester. *Works :* Leicester and Market Harboro'. *Cable Address :* "Hearth, Leicester." *Code :* A.B.C. (4th and 5th Edition).

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New Zealand—Harris Street, Wellington. **Denmark**—18, Nyhavn, Copenhagen. **Sweden**—39, Bergerjarlsgatan, Stockholm. **Norway**—Citypassagen, Christiania. **Australia**—228, Pitt Street, Sydney. **Holland**—Kiezersgracht, 124, Amsterdam. **S. Africa** Fox Street, Johannesburg.

Heath (Robert) & Low Moor, Ltd.

Head Office and Works : Biddulph Valley Coal & Iron Works, Stoke-on-Trent.

Heath (Samuel) & Sons, Ltd.

GENERAL BRASS FOUNDRY.

Head Office and Works : Leopold Street, Birmingham. *Cable Address :* "Spinning, Birmingham." *Codes :* A.B.C. and Marconi.

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Heaton & Dugard, Ltd.

ROLLED METAL, WIRE AND BENT WIRE GOODS.

Head Office : Shadwell Street Mills, Birmingham. *Works :* Shadwell Street Rolling Mills, and Princip Street Rolling Mills, Birmingham. *Telegraphic Address :* "Heagard, Birmingham."

Henley's (W.T.) Telegraph Works Co., Ltd.

(*See Advertisement Section, page* **118.**)

INSULATED WIRES AND CABLES OF ALL KINDS, FOR POWER, LIGHTING, TELEGRAPHY AND TELEPHONY; JOINT AND FUSE BOXES, JOINTING MATERIALS FOR CABLES.

Head Office : 13-14, Blomfield Street, London Wall, E.C.2. *Works :* North Woolwich and Gravesend. *Cable Address :* "Henley's, London." *Codes :* A.B.C. (5th Edition), Western Union Universal, Western Union (5 Letter Edition), Marconi International and Private.

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Hepburn, Gale & Ross, Ltd.

(*See Advertisement Section, page* **170.**)

LEATHER AND LEATHER GOODS, BALATA BELTING AND ARMY ACCOUNTREMENTS.

Head Office : 239, Long Lane, London, S.E.1. *Works :* Grange Mills, Grange Road, London, S.E.1; Royal Oak Tannery, Bermondsey, London, S.E.1; Church Road, Mitcham, Surrey. *Cable Address :* "Beltingale, Sedist, London." *Codes :* A.B.C. (5th Edition), and Bentley's.

Hepworth Picture Plays, Limited.

(*See Advertisement Section, page* **250.**)

Head Office : 2, Denman Street, Piccadilly, W.1. *Works :* Hurst Grove, Walton-on-Thames. *Cable Address :* "Heptoic, London." *Code :* A.B.C. (5th Edition).

Hepworth Picture Plays, Ltd.—*continued.*

AGENTS OVERSEAS :

Norway—Andvig & Co., Sjogaten 4, Christiania. **Canada**—Anglo-Canadian Picture Plays, Ltd., 97 St. James Street, Montreal. **Argentine**—Willatts Allied Exporters, Ltd., Bolsa de Commercio, Esq. 526, Calle 25 de Mayo, Buenos Aires. **France**—The Director Film-Etoile (S.G.C.), 63, Avenue des Champs-Elysees, Paris.

Hess (A.) & Bro., Ltd.

(*See Advertisement Section, page* **245.**)

OIL AND STEARINE WORKS, OIL DISTILLERS AND REFINERS.

Head Office : Kirkstall Road, Leeds. *Cable Address :* "Hess, Leeds." *Codes :* A.B.C. (5th Edition), Marconi International.

Heywood (John), Ltd.

(*See Advertisement Section, page* **218.**)

STATIONERS, PRINTERS, PAPER AGENTS, AND FURNITURE MANUFACTURERS.

Head Office : 121, Deansgate, Manchester. *Works :* Printing, Stationery—Hulme Hall Road, Cornbrook ; Church, School and General Furniture—Weaste Road South. *Cable Address :* "Books, Manchester." *Codes :* A.B.C. (5th Edition) and Western Union.

AGENT OVERSEAS :

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Hick, Hargreaves & Co., Ltd.

STEAM AND OIL ENGINES, CONDENSING APPARATUS, ETC. GENERAL ENGINEERING MANUFACTURERS.

Head Office and Works : Soho Iron Works, Bolton, Lancashire. *London Office :* 90, Temple Chambers, Temple Avenue, London, E.C.4. *Cable Addresses :* "Hick, Bolton." *Telegraphic Address :* "Umshawvapo, Fleet, London." *Codes :* A.B.C. (5th Edition), A1 (1888), Western Union (Universal Edition), Lieber's Standard.

AGENTS OVERSEAS :

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Hickman (Alfred), Ltd.

Head Office and Works : Staffordshire Steel and Ingot Iron Works, Bilston, Staffs.

High Speed Steel Alloys, Ltd.

MAKERS OF TUNGSTEN METAL POWDER.

Head Office and Works : Ditton Road, Widnes, Lancs. *Cable Address:* "Alloys, Widnes." *Codes:* Bentley's, A.B.C. (5th Edition).

Hill (Charles) & Sons, Ltd.

(*See Advertisement Section, page* **33.**)

SHIP BUILDERS AND SHIP REPAIRERS.

Head Office and Works : Albion Dockyard, Cumberland Road, Bristol. *Cable Address :* "Hills, Bristol." *Code :* Scott's.

Hill (J. C.) & Co., Limited.

(*See Advertisement Section, page* **55.**)

MAKERS OF STEEL WIRE AND NAILS.

Head Office : 20, Copthall Avenue, London, E.C.2. *Works :* Oakfields Steel Wire Works, Cwmbran, Mon. *Cable Address :* "Acorn, Cwmbran." *Code :* A.B.C. (5th Edition).

Hill (J. & P.).

LOCOMOTIVE PARTS, RAILWAY AND STEAMSHIP SPECIALITIES, STEEL AND ENGINEERING WORK, ETC.

Head Office : 30, Victoria Street, Westminster, S.W.1. *Works :* Sheffield.

Hinks (James) & Son, Ltd.

LAMPS, LANTERNS AND GENERAL MANUFACTURERS.

Head Office and Works : Great Hampton Street, Birmingham. *Cable Address :* "Hinks, Birmingham." *Codes :* A.B.C. (5th Edition), Marconi.

OVERSEAS ADDRESSES :

India—199, Hornby Road, Bombay ; 13-3A, Government Place, E., Calcutta ; Victoria Buildings, 13B, First Cross Street, Colombo.

Hobdell, Way & Co., Ltd.

(*See Advertisement Section, page* **124.**)

MAKERS OF ASBESTOS.

Head Office : St. John's House, 124-7, Minories, E.1. *Works :* Sheppy Place, Minories, E.1. *Cable Address :* "Hobnails, Ald., London." *Codes :* A.B.C., Bentley's Engineering, Moreing and Neals, Western Union.

Hodgson (Wm.) & Sons (Weighing Machinists), Ltd.

(*See Advertisement Section, page* **107.**)

MAKERS OF WEIGHBRIDGES AND WEIGHING MACHINES.

Head Office : 136-8, Chapel Street, Salford, Manchester. *Works :* Openshaw. *Cable Address :* "Maintain, Manchester." *Codes :* A.B.C. (5th Edition), Lieber's and Western Union.

Hoffmann Manufacturing Co., Ltd.

STEEL BALLS AND ROLLERS, BALL AND ROLLER BEARINGS.

Head Office and Works : Chelmsford, Essex. *Cable Address :* "Hoffmann, Chelmsford." *Codes :* A.B.C. (5th Edition), Lieber's, Western Union and Marconi.

Hollings & Guest, Ltd.

MAKERS OF HYDRAULIC MACHINERY.

Head Office and Works : Thimble Mill Lane, Birmingham. *Cable Address :* "Plungers, Birmingham." *Codes :* A.B.C. (5th Edition), Bentley's.

Hollington Brothers.

MEN'S, WOMEN'S AND CHILDREN'S CLOTHING OF ALL DESCRIPTIONS.

Head Office and Works: Aldgate, London, E.1.

Hollins Mill Co., Ltd.

(*See Advertisement Section, page* **156**.)

MAKERS OF COTTON GOODS.

Head Office: 5, Portland Street, Manchester. *Works:* Hollins' Mill, Marple, Cheshire; Wellington Mill, Hazel Grove, Cheshire. *Cable Address:* "Sheaf, Manchester." *Codes:* Lieber's, A.B.C. (5th Edition), Marconi's New Code.

AGENTS OVERSEAS:

Canada—C. W. Dunning, Empire Building, Toronto. **France**—L. Galland & G. Dujardin, 42, Rue Fosseaux-Chenes, Roubaix. **Holland**—A. Moonen, Insulindestraat 47B, Rotterdam and at Prinsensgracht, 690, Amsterdam. **Norway**—M. H. Meisterlin, Prinsens Gade 22, Christiania. **Sweden**—Carl Ostergren, 110, Drottninggatan, Stockholm. **Denmark**—J. Natkin, Vodroffsvej 7, Copenhagen. **Switzerland**—E. Klemenz-Hauser, Sonneggstrasse 82, Zurich. **Greece**—Georges Kyfiotis, 38 Rue Pericles, Athens. **Salonika**—Petala & Evidis, 31, Rue Alexandre-le-Grand, Salonika. **Turkey**—Petala & Evidis, Katirdjoglou Han-Stamboul, Constantinople. **Italy**—Adolfo Rossini, Ancona.

Holloway Bros., Ltd.

(*See Advertisement Section, page* **163**.)

MEN'S AND BOYS' READY-MADE CLOTHING, MEN'S AND AND BOYS' SHIRTS, ETC.

Head Office and Works: Stroud, Gloucestershire, England. *Cable Address:* "Holloways, Stroud." *Code:* Marconi International.

AGENTS OVERSEAS:

Holland—E. C. Van Someren, 11, Wijnbrugstraat, Rotterdam. **S. Africa**—W. E. Kimberley, c/o J. Lawley & Co., Ltd., P.O. Box 1044, Cape Town. **Denmark**—Woolrych & Polge, Holmens Kanal, 20, Copenhagen.

Holman Brothers, Ltd.

MAKERS OF MINING MACHINERY.

Head Office and Works: Camborne, England. *Cable Address:* "Airdrill, Camborne." *Codes:* A.B.C. (4th and 5th Editions), Broomhall's Imp., Bedford McNeil's, Moreing & Neal's.

AGENTS OVERSEAS:

S. Africa—Fraser & Chalmers (S.A.), Ltd., Johannesburg. **India**—Shaw Wallace & Co., Calcutta. **Spain**—Moreno & Co., Madrid. **Italy**—A. E. Praetorius, Milan. **Belgium**—J. J. Eich, Brussels. **Norway**—Fosen Oxaal & Co., Kristiania. **Canada**—Mussens, Ltd., Montreal. **China**—Anglo-Chinese Engineers Association, Ltd., Pekin. **Russia**—British Engineering Co. of Russia & Siberia, Ltd., Moika 58, Petrograd. BRANCHES AT Moscow, Kieff, Nijni Novgorod, Archangel, Ekaterinberg, Omsk, Vladivostock and Habarovsk.

Holman, Michell & Co., Ltd.

SHEET LEAD, LEAD PIPES AND ALUMINIUM BEADINGS.

Head Office and Works: Cornwall Lead and Metal Works, St. Helens.

Holmes (W. C.) & Co., Ltd.

MAKERS OF GAS AND CHEMICAL ENGINEERING PLANTS.

Head Office: Turnbridge, Huddersfield. *Works:* Whitestone Ironworks and Turnbridge Foundry, Huddersfield. *Cable Address:* "Holmes, Huddersfield." *Codes:* A.B.C. (5th Edition), Lieber's.

Holroyd (John) & Co., Ltd.

(*See Advertisement Section, page* **283**.)

MAKERS OF MACHINE TOOLS.

Head Office: Milnrow, Nr. Rochdale. *Works:* Milnrow and Rochdale. *London Office:* 34, Victoria Street, London, S.W.1. *Cable Address:* "Knit, Milnrow." *Codes:* A.B.C. (5th Edition), and Lieber's (5 Letter).

AGENTS OVERSEAS:

Belgium—J. Ducamp, 6, Quai a la Houille, Bruxelles (Centre). **Poland**—J. Fogelson, 49, Jerozolimska, Warsaw, Poland. **Spain (Cataluna)**—V. Moya, Valencia 335, Barcelona.

Holt Brewery Co., Ltd.

BREWERS.

Head Office: Holt Street, Birmingham.

Holt (Joseph).

BREWER.

Head Office: Derby Brewery, Manchester.

Holt & Willetts.

MAKERS OF LIFTING TACKLE.

Head Office: Cradley Heath. *Works:* Lion Works, Cradley Heath. *Cable Address:* "Holt. Willetts, Cradley Heath." *Codes:* A.B.C. (5th Edition), Western Union.

AGENTS OVERSEAS:

France—E. Aumont, 23, Rue Bichat, Paris. **Canada**—Drummond McCall & Co., Montreal. **Australia**—E. Wood, Hardware Chambers, 231, Elizabeth Street, Montreal.

Hooker (Peter), Ltd.

(*See Advertisement Section, page* **22**.)

ENGINEERS.

London Office: Aircraft House, 25 & 27, Old Queen Street, Westminster, S.W.1. *Offices and Works:* Blackhorse Lane, Walthamstow, E.17. *Cable Address:* "Elevenfold, Waltstreet, London." *Code:* A1.

Hope (Henry) & Sons, Ltd.

MAKERS OF BRONZE AND STEEL CASEMENTS.

Head Office and *Works:* Halford Works, Smethwick, Staffordshire. *Cable Address:* "Conservatory, Birmingham." *Codes:* Western Union, A.B.C. (5th Edition), and Private.

Hope (Henry) & Sons, Ltd.—*continued.*

OVERSEAS ADDRESSES:

U.S.A.—103, Park Avenue, New York. **Canada**—35, King Street West, Toronto, Ontario.

Hope Manufacturing Co., Ltd.

MAKERS OF WATERPROOF AND SHOWERPROOF GARMENTS.

Head Office and Works: Sheepscar Works, Leeds. *Cable Address:* "Anchor, Leeds." *Code:* A.B.C. (5th Edition).

Hopkinson (J.) & Co., Ltd.

MAKERS OF BOILER MOUNTINGS AND VALVES.

Head Office: Birkby, Huddersfield. *Works:* Britannia Works, Huddersfield. *Cable Address:* "Hopkinson, Huddersfield." *Codes:* A.B.C. (5th Edition), Lieber's, Western Union.

OVERSEAS ADDRESSES:

France—Societe des Etablissements Hopkinson, 94, Rue Saint-Lazare, Paris. **Belgium**—91, Boulevard Emile Jacqmain, Brussels.

Hornby & West, Ltd.

MAKERS OF BOOTS AND SHOES.

Head Office: Wycliffe Road, Northampton. *Cable Address:* "Carlton, Northampton. *Code:* A.B.C. (5th Edition).

AGENTS OVERSEAS:

India—Joseph Law, c/o, King, King & Co., Bombay. **Egypt**—J. Rosen, P.O. Box 881, Alexandria. **France**—Charlot Bros., 103, Rue Lafayette, Paris. **West Indies**—Archibald Gordon, c/o J. B. Stiven, Kingston, Jamaica. **Canada**—Industrial Export Co. of Canada, Ltd., 263, St. James Street, Montreal.

Horrockses, Crewdson & Co., Ltd.

MAKERS OF COTTON PIECE GOODS.

Head Office: 107, Piccadilly, Manchester. *Works:* Preston and Bolton, Lancashire. *Cable Address:* "Horrockses, Manchester." *Codes:* A.B.C. (5th Edition), Bentley's, Western Union, Lieber's.

OVERSEAS BRANCHES:

Australia—Horrockses, Crewdson & Co., Ltd., Pomeroy House, York Street, Sydney (N.S.W.); 250, Flinders Lane, Melbourne; Bank of Commerce Chambers, Brisbane. **S. Africa**—J. Maunder, P.O. Box 234, 509, Mutual New York Buildings, St. Georges Street, Cape Town; F. Coxon, P.O. Box 21, 11, Stuttaford's Chambers, Johannesburg.

AGENTS OVERSEAS:

Canada—John E. Ritchie, 591, St. Catherine Street W., Montreal. **China**—Jardine, Matheson & Co., Ltd., Hong Kong; Dodwell & Co., Ltd., Shanghai and Hankow. **India**—Forbes, Forbes Campbell & Co., Ltd., Bombay; Andrew Yule & Co., Ltd., Calcutta; Carson & Co., Ltd., Colombo; Forbes, Forbes Campbell & Co., Ltd., Kurrachee; W. A. Beardsell & Co., Ltd., Madras; Finlay, Fleming & Co., Rangoon. **New Zealand**—Robert Malcolm, Ltd., 79, Lichfield Street, Christchurch, Dunedin, Wellington (Mercer Street), Auckland. **Straits Settlements**—Syme & Co., Singapore. **Argentina**—Ashworth & Co., Buenos Aires. **Bolivia**—Betteley & Co., Ltd., Valparaiso; Iquique. **Brazil**—P. S. Nicolson & Co., Rio de Janeiro and Santos. **Chili**—Betteley & Co., Ltd., Valparaiso; Iquique. **Denmark**—Jens Rasmussen, Kronprinsengade, Copenhagen. **Dutch East Indies**—Pitcairn, Syme & Co., Batavia, Sourabaya, Samarang. **France**—P. G. Tallon, 12, Cite Trevise, Paris; Charles Hervieu, 12, Rue Paul Lelong, Paris; P. Hugard, 13, Rue Vivienne, Paris. **Holland**—A. S. Veder, Prinsengracht 1097, Amsterdam. **Japan**—Cornes & Co., Yokohama and Kobe; Jardine, Matheson & Co., Ltd., Yokohama. **Norway**—M. H. Meisterlin, Prinsens Gate 22, Christiania. **Peru**—Betteley & Co., Ltd., Valparaiso and Iquique. **Siam**—Syme & Co., Bangkok. **Switzerland**—E. Ludwig, Bleicherweg 44, Zurich. **Uruguay**—Senra, Pique & Co., Calle Rincon 676, Monte Video. **Belgium**—Madame G. Demettre, 24, Rue des Fripiers, Brussels. **U.S.A.**—Wright & Graham, 108-110, Franklin Street, New York.

Horsehay Co., Ltd.

BRIDGE, ROOF AND CONSTRUCTIONAL STEELWORK, ETC.

Head Office and Works: Horsehay, Shropshire.

Horseley Bridge & Eng. Co., Ltd.

Head Office and Works: Tipton, Staffs. *Cable Address:* "Horseley, Tipton, Staffs."

Houlder Bros. & Co., Ltd.

SHIPOWNERS.

Head Office: 146, Leadenhall Street, E.C.3.

Houldsworth (Thos.) & Co., Ltd.

MAKERS OF FINE COTTON YARNS.

Address: Reddish, Nr. Stockport.

Howards & Sons, Ltd.

FINE, PHARMACEUTICAL AND TECHNICAL CHEMICALS.

Head Office: Ilford, Nr. London. *Works:* Ilford and Stratford, Nr. London. *Cable Address:* "Quinology, Ilford." *Codes:* A.B.C. (4th and 5th Editions), Lieber's and Marconi's.

AGENTS OVERSEAS:

India—G. Atherton & Co., Clive Buildings, 8, Clive Street, Calcutta; S. B. Chetty, 10, Francis Joseph Street, Madras; S. M. F. Ellahie, Hafiz Khan's Gate, Delhi; H. B. Tilden, Poste Restante, Bombay; Framjee & Son, 14-16, Green Street, Fort, Bombay. **Holland**—Gust, Briegleb, Amsterdam. **Italy**—Oreste Bifani, Via e Palazzo Maddaloni 6, Naples; Ditta Riccardo Maggioni, Casella Postale No. 57, Milan. **Belgium**—Ch. Collard, 29, Rue de L'Union, 29, Brussels. **Greece**—R. & W. Hill, 55, Aeolus Street, Athens. **Canada**—The Lyman Bros., Ltd., 71, Front Street, East, Toronto; Lymans, Ltd., 344, St. Paul

Howards & Sons, Ltd.—*continued.*

Street, West, Montreal. **Cyprus**—Joseph Murat, Larnaca. **Brazil**—Robert Périgois, P.O. Box 1563, Rua Senhor dos Passos 24-Mno, Rio de Janeiro. **Egypt**—A. N. Valsamis, P.O. Box 1358, Alexandria. **Argentine**—Miller & Cie., Buenos Aires. **China**—F. J. Norbury & Son, 1, The Bund, Shanghai. **Syria (Beyrouth)**—Atallah, Kadige & Cie. **Turkey**—Jacques Landmann, Constantinople. **Asia Minor**—Thomas Bottomley, Smyrna. **W. Indies**—T. Geddes Grant, Ltd., 9-11, Broadway, Port of Spain, Trinidad.

Howe (W. & H.).

MAKERS OF HOSIERY.

Head Office: Curzon Works, Curzon Street, Leicester. *Works:* Stoney Stanton, Nr. Hinckley. *Cable Address:* "Howlet." *Code:* A.B.C. (5th Edition).

Howell & Co., Ltd.

(*See Advertisement Section, page* **273.**)

MAKERS OF STEEL TUBES.

Head Office: Wincobank, Sheffield. *Works:* Sheffield Tube Works and Brook Steel Works. *Cable Address:* "Howell, Sheffield." *Codes:* A.B.C., A1, Engineering, Bentley's, Marconi.

AGENTS OVERSEAS:

S. Africa—R. M. Dowson, Ltd., Oceana Buildings, Simmonds Street, Johannesburg. **Australia**—G. Lodge & Co., Ltd., 506, Little Collins Street, Melbourne; 115, Pitt Street, Sydney. **S. America**—Chas. Peyton, Plaza Hotel, Buenos Aires; Maurice Chater, Plaza Hotel, Buenos Aires.

Howitt (J.) & Son.

LITHOGRAPHIC AND LETTERPRESS PRINTED MATTER.

Address: Alfred Street Mills, Nottingham.

Howlett & White, Ltd.

MAKERS OF BOOTS AND SHOES.

Head Office and Works: St. George's Plain, Norwich. *Cable Address:* "Howlett, Norwich." *Code:* A.B.C. (5th Edition).

AGENTS OVERSEAS:

France—Fernand Meyer-Dubus, 257, Rue St. Martin, Paris. **Holland**—Gerzon & Lam, N.Z. Voorburgwal 102, Amsterdam. **Italy**—G. Celli, Piazzi dei Garibaldi 6, Genoa. **New Zealand**—George, Doughty & Co., Victoria Street, Wellington. **Denmark**—C. G. Friberg, Vesterbrogade 12-14, Copenhagen. **Switzerland**—Andre Gessler, Rue du Rhin 7, Basle. **S. Africa**—A. M. J. Sytner, P.O. Box 6732, Johannesburg.

Hoyle (Joshua) & Sons, Ltd.

(*See Advertisement Section, page* **228.**)

MAKERS OF COTTON GOODS.

Head Office: 50, Piccadilly, Manchester. *Works:* Bacup, Summerseal, Shawforth, Rochdale, Shaw. *Codes:* Bentley's Phrase, A.B.C. (5th Edition), Lieber's, Premier. *Cables:* "Sunset, Manchester."

Hubbard (S.).

Head Office and Works: Regent Street Works, Luton. *Cable Address:* "Felt, Luton." *Codes:* A.B.C., Lieber's.

Hudson (Robert), Ltd.

(*See Advertisement Section, page* **93.**)

MAKERS OF LIGHT RAILWAY EQUIPMENT.

Head Office: 38A, Bond Street, Leeds. *Works:* Gildersome Foundry, Gildersome, Nr. Leeds. *London Office:* Suffolk House, Cannon Street, London, E.C.4. *Cable Address:* "Raletrux, Leeds." *Codes:* A.B.C. (5th Edition), Western Union, and Private Code in our Catalogue.

OVERSEAS BRANCHES AND AGENCIES:

S. Africa—Robert Hudson & Sons, Ltd., P.O. Box 5744, Johannesburg; P.O. Box 1007, Durban; Caixa Postal 177, Lourenco Marques; P.O. Box 292, Beira; P.O. Box 265, Loanda, Angola; P.O. Box 118, Port Louis, Mauritius. **Brazil**—Robert Hudson, Ltd., c/o Knowles & Foster, Caixa Postal 1412, Rio de Janeiro. **Egypt**—Robert Hudson, Ltd., P.O. Box 1446, Cairo, and at Alexandria. **India**—Robert Hudson (India), Ltd., 6 & 7, Clive Street, Calcutta, also at Bombay and Kidderpore. **Singapore**—Robert Hudson, Ltd., c/o The Borneo Co., Ltd., 1, Finlayson Green. **Java**—Robert Hudson, Ltd., c/o The London Java Engineering Agencies Co., Ltd., Sourabaya. **Russia and Siberia**—Becos Traders, Ltd., Moika 58, Petrograd. BRANCHES AT Moscow, Kieff, Nijni Novgorod, Archangel, Ekaterinburg, Omsk, Vladivostock and Habarovsk.

Hudson, Sykes & Bousfield, Ltd.

MAKERS OF WORSTED AND WOOLLEN GOODS.

Head Office: 19, Wellington Street, Leeds. *Works:* Springfield Mills, Nr. Leeds. *Cable Address:* "Bousfield, Leeds." *Codes:* A.B.C. (4th and 5th Editions), Bentley's Phrase and Marconi.

OVERSEAS ADDRESSES:

Canada—G. H. Bishop, 301, St. James' Street, Montreal; W. R. Begg & Co., 20, Wellington Street, West, Toronto. **Australia**—S. W. Church & Co., Commerce House, Flinders Street, Melbourne.

Hughes (George H.).

MAKERS OF WHEELS FOR INVALID CARRIAGES, ETC.

Head Office and Works: St. Stephen's Wheel Works, Birmingham.

Humber, Limited.

MAKERS OF MOTOR CARS, MOTOR CYCLES, AND CYCLES.

Head Office and Works: Coventry. *Cable Address:* "Humber, Coventry." *Codes:* A.B.C. (5th Edition), and Bentley's 1919.

Humphreys, Limited.

Head Office: 187-193, Knightsbridge, London, S.W.7. *Works:* Buckingham Palace Road, S.W. *Cable Address:* "Humphreys, Knightsbridge, London." *Code:* A.B.C. (5th Edition).

OVERSEAS ADDRESS:

Belgium—23, Rue Robert Mols, Antwerp (temporary).

Humphries & Dawes, Ltd.

AIRCRAFT PARTS, MOTOR CYCLES AND CYCLES.

Head Office: York Road, Hall Green, Birmingham. *Works:* Hall Green Works, Birmingham. *Cable Address:* "Humdaw, Birmingham." *Code:* A.B.C. (5th Edition).

AGENTS OVERSEAS:

Holland—Aug. Maschmeijer, Spuistraat 2, Amsterdam. **Denmark**—Stevns & Co., Gl. Kongevej 19, Copenhagen. **S. Africa**—Capt. B. C. Woodward, P.O. Box 124, Germiston (Transvaal). **Australia**—R. V. Bristol, Messrs. R. V. Bristol & Co., Pty., Ltd., Danks Buildings, 401, Bourke Street, Melbourne. **Finland**—Victor Forsellius, Abo. **Belgium**—Van Poelvoorde, Chaussee de Waterloo 540, Ixelles-Bruxelles. **Cyprus**—B. C. Petrides, Nicosia. **Italy**—Weiss & Stabilini, Via Settembrini 9, Milano. **Japan**—Futabaya & Co., Tokio.

Hurst, Nelson & Co., Ltd.

(*See Advertisement Section, page* **275.**)

Head Office and Works: The Glasgow Rolling Stock and Plant Works, Motherwell, Scotland. *Cable Address:* "Nelson, Motherwell." *Codes:* Western Union, A.B.C. (5th Edition), Lieber's, and Bentley's Complete Phrase Codes.

CONTINENTAL AGENT:

France—Ad. Seghers, 11, Rue Scribe, Paris.

Hutchinson (Edward).

FLOUR MILLERS.

Head Office: 59, Burlington Street, Liverpool. *Works:* Jersey Flour Mills, Burlington Street, Liverpool.

Hydrogen, Oxygen & Plant Co., Ltd. (The).

(*See Advertisement Section, page* **113.**)

Head Office: 1, Albemarle Street, Piccadilly, London, W.1. *Works:* London and Johannesburg. *Cable Address:* "Hopcogen, Piccy, London." *Code:* Bentley's.

OVERSEAS ADDRESS:

S. Africa—The Hydrogen, Oxygen & Plant Co., Ltd., c/o Dowson & Dobson, Oceana Buildings, Simmonds Street, Johannesburg.

I

Illingworth (Danl.) & Sons.

MAKERS OF WORSTED YARN.

Head Office and Works: Whetley Mills, Bradford.

Imperial Paper Mills, Ltd.

MAKERS OF PAPER OF ALL DESCRIPTION.

Address: 50, Cannon Street, London, E.C.4.

Imperial Patent Wadding Co., Ltd. (The).

MAKERS OF WADDING AND COTTON WOOL.

Head Office: 14, Chorlton Street, Manchester. *Works:* Empire Works, Clayton, Manchester. *Cable Address:* "Imp., Manchester."

Imperial Tobacco Co. (of Great Britain and Ireland), Ltd.

MAKERS OF TOBACCO, CIGARETTES, CIGARS AND SNUFF.

Address: East Street, Bedminster, Bristol.

India Rubber, Gutta Percha & Telegraph Works Co., Ltd. (The Silvertown Co.).

(*See Advertisement Section, page* **116.**)

Head Office: 106, Cannon Street, London, E.C.4. *Works:* Silvertown, London, E.16. *Cable Address* (Head Office): "Silvergray, London"; (Works), "Graysilver, London." *Codes:* Marconi International, A1 and A.B.C. (6th Edition).

OVERSEAS ADDRESSES:

Australasia—7, Leigh Street, Adelaide; 21-23, Elizabeth Street, Melbourne; 279, George Street, Sydney; 165, Manchester Street, Christchurch (N.Z.). **S. America**—2697-99, Calle Corrientes, Buenos Aires. **India**—7, Old Court House Street, Calcutta. **S. Africa**—44, Joubert Street, Johannesberg; 340, West Street, Durban. **France**—Office, 31, Rue la Boetie, Paris; Works, Persan (Seine et Oise).

Ingram (J. G.) & Son, Ltd.

SURGICAL AND MECHANICAL INDIA RUBBER GOODS.

Head Office and Works: The London India Rubber Works, Hackney Wick, London, E.9. *Cable Address:* "Ingrams, London." *Codes:* Western Union, A.B.C. (5th Edition), Western Union Telegraphic, Supplement A, Bentley's.

AGENTS OVERSEAS:

U.S.A.—E. Monnier, 157, Federal Street, Boston, Mass. **Australia**—W. J. W. Childs, 325, Flinders Lane, Melbourne. **Brazil**—Wills, Ellis & Co., Rua Alfandega, 50, Sobrado, Rio de Janeiro, Brazil. **Holland**—A. Bosch & Co., 55, Emmastraat, Le Hague. **India**—N. Powell & Co., Byculla, Bombay. **New Zealand**—Glyn Jones & Brown, 110-112, Wakefield Street, Wellington. **Paris**—Ch. Doublet, 3, Rue du Platre. **Syria**—B. M. Baroody, Drug Stores, Beyrout. **Egypt**—B. M. Baroody, P.O. Box 444, Cairo.

International Paint & Compositions Co., Ltd. (The).

(*See Advertisement Section, page* **254.**)

ANTI-FOULING AND ANTI-CORROSIVE COMPOSITION MANUFACTURERS, ALSO ALL DESCRIPTIONS OF READY-MIXED AND PASTE PAINTS.

Head Office: 6, Broad Street Place, London, E.C.2. *Works:* Felling-on-Tyne. *Cable Address:* Inland, "Corrofoul, Ave., London"; Foreign, "Holzapfel, London." *Codes:* A.B.C. (5th Edition), A1, Bentley's.

OVERSEAS ADDRESSES:

Sweden—Fargaktiebolaget International, Gothenburg. **Denmark**—Den Internationale Skibsfarve-fabrik, A/S, Copenhagen. **Norway**—International Composition & Farvefabrik A/S, Bergen. **U.S.A.**—International Compositions Co., Incorporated, Welles Building, 18, Broadway, New York. **Italy**—Soc. Anon. Internationale per la Fabbricazione di Pitture Sottomarine, Colorie Vernici, Vico Mele 2, Genoa. **Brazil**—International Paint & Compositions Co., Ltd., Rio de Janeiro. **Japan**—Goshi Kaisha Bankoku Toryo Seizosho, Kobe, &c.

J

Jacob (W. & R.) & Co., Ltd.

(*See Advertisement Section, page* **236.**)

MAKERS OF BISCUITS AND CAKES.

Head Office: 28-31, Bishop Street, Dublin, Ireland. *Works:* Dublin, Ireland; and Aintree, Nr. Liverpool. *Cable Address:* "Jacob, Dublin." *Codes:* A.B.C. (5th Edition), Private, Lieber's (5-Letter), Bentley's and Marconi.

Jenkinson (Henry), Limited.

PRINTING.

Head Office and Works: Abbey Printing Works, Kirkstall, Leeds.

Jennens & Co., Limited.

NAVAL, MILITARY, FIRE BRIGADE, POLICE AND CIVIL BUTTONS AND BADGES, ALSO METAL HELMETS OF ALL KINDS.

Head Office: 2, New Burlington Place, Regent Street, London, W.1. *Works:* Deritend, Birmingham. *Cable Address:* "Milorman, Reg., London." *Code:* A.B.C.

Jennings (George), Ltd.

SANITARY ENGINEERS.

Head Office and Works: Lambeth Palace Road, London, S.E.1. *Cable Address:* "Jennings, 'Phone, London." *Code:* A.B.C. (5th Edition).

OVERSEAS ADDRESS:

France—67, Boulevard Raspail, Paris (VIe).

AGENTS OVERSEAS:

Egypt—Associated British Manufacturers (Egypt), Ltd., Khedivial Buildings "B," Sharia Emad El Din, Cairo. **Greece**—Associated British Manufacturers (Near East), Ltd., No. 3, Kapnicarea St., Athens. **Roumania**—Associated British Manufacturers (Near East), Ltd., 97, Viitorului, Bucharest. **Serbia**—Associated British Manufacturers (Near East), Ltd., Kneze Michaeilova Ulita 21, Belgrade. **Turkey**—Associated British Manufacturers (Near East), Ltd., 40-42, Union Han, Galata, Constantinople. CORRESPONDENTS IN Australia, Belgium, Canada, China, Italy, Morocco, Norway, New Zealand, Spain, South America and South Africa, etc.

Jenson & Nicholson, Ltd.

MAKERS OF VARNISHES, JAPAN AND COLOURS.

Head Office: Warton Road, Stratford, London, E.15. *Works:* Goswell Works, Stratford, London, E.15. *Cable Address:* "Varnish, London." *Codes:* A.B.C. (4th and 5th Editions), Lieber's and Private.

AGENTS OVERSEAS:

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Johnson & Barnes, Ltd.

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Johnson (C. H.) & Sons, Ltd.

(*See Advertisement Section, page* **263.**)

WIRE WEAVERS AND WIRE WORKERS, LOADER AND UNLOADER AND MINING PLANT.

Head Office and Works: Manchester Wire Works, Smedley Road, Manchester. *Cable Address:* "Irkdale, Manchester." *Codes:* A.B.C. (5th Edition), Western Union, Marconi.

Johnson, Matthey & Co., Ltd.

(*See Advertisement Section, page* **129.**)

ASSAYERS, REFINERS AND MANUFACTURERS OF PRECIOUS METALS AND FINE CHEMICALS.

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U.S.A.—Johnson, Matthey & Co., Inc., Woolworth Building, 233, Broadway, New York.

Johnson & Phillips, Ltd.

(*See Advertisement Section, page* **76.**)

ELECTRIC CABLE AND ELECTRICAL APPARATUS AND MACHINERY.

Head Office and Works: Charlton, London, S.E.7. *Cable Address:* "Juno, London." *Codes:* Bentley's, Marconi, A.B.C., Western Union, Lieber's, A1, Engineering.

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Johnson (Richard) & Nephew, Ltd.—*continued.*

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Head Office: Continental Steel Works, Sheffield. *Works:* Continental Steel Works and Novo Steel Works, Sheffield. *Cable Address:* "Jonas, Sheffield." *Codes:* A.B.C., A1, Lieber's, Broomhall's, Engineering, Western Union, and Marconi.

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Jones (A. A.) & Shipman, Ltd.

(*See Advertisement Section, page* **285.**)

MAKERS OF MACHINE TOOLS.

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Jones Brothers, Limited.

(*See Advertisement Section, page* **167.**)

MAKERS OF COTTON GOODS.

Head Office: 12, York Street, Manchester. *Mills:* Lancashire. *Factory:* Linenhall Street, Belfast, Ireland. *Cable Address:* "Jonbro, Manchester."

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K

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Keiller (James) & Son, Ltd.

(*See Advertisement Section, page* **235.**)

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Kemp (Arthur)—*continued.*

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(*See Advertisement Section, page* **295.**)

ROPES AND TWINES AND NON-CONDUCTING MATERIALS FOR BOILERS AND STEAM PIPES.

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Kershaw & Abell.

DYERS.

Head Office and Works: Aylestone Dye Works, Leicester.

Kershaw, Leese & Co., Ltd.

(*See Advertisement Section, page* **158.**)

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Lanchester Motor Co., Ltd.

(*See Advertisement Section, page* **11.**)

MAKERS OF MOTOR CARS AND AERO ENGINES.

Head Office : Armourer Mills, Montgomery Street, Birmingham. *Branch Offices :* 95, New Bond Street, London, W., and 88, Deansgate, Manchester. *Works :* Birmingham, and Greet in Birmingham. *Cable Address :* "Motivity, Birmingham." *Codes :* A.B.C. (5th Edition), Western Union, Private.

Langworthy Bros. & Co., Ltd.

COTTON SPINNERS AND MANUFACTURERS, BLEACHERS, DYERS, PRINTERS, AND MERCHANTS.

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Lanston Monotype Corporation, Ltd.

(*See Advertisement Section, page* **224.**)

TYPE-CASTING AND COMPOSING MACHINERY, ETC.

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Lee, Howl & Co., Ltd.

(*See Advertisement Section, page* **272.**)

MAKERS OF PUMPS.

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Lee & James, Ltd.

MAKERS OF BRUSHES.

Address: Moseley Street, Birmingham.

Leeds Forge Co., Ltd.

(*See Advertisement Section, page* **94.**)

RAILWAY ROLLING STOCK, CORRUGATED BOILER FURNACES (FOR MARINE AND LAND BOILERS), BOILER PLATES.

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Leitch (John W.) & Co.

(*See Advertisement Section, page* **211.**)

ANILINE DYE MANUFACTURERS AND MAKERS OF INTERMEDIATE PRODUCTS AND NITRO COMPOUNDS FOR EXPLOSIVES.

Head Office: 78-80, New Street, Milnsbridge, Nr. Huddersfield. *Works:* Milnsbridge, Nr. Huddersfield. *Cable Address:* "Leitch, Milnsbridge." *Codes:* A.B.C. (5th Edition), and Lieber's.

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Lever Brothers, Limited.

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Lichtenstein (J. & E.) (Jelco), Ltd.

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Head Office and Works: Gordon Street Works, Broughton, Manchester. *Cable Address:* "Jelco, Manchester."

Lightfoot Refrigeration Co., Ltd.

(*See Advertisement Section, page* **294.**)

MAKERS OF ICEMAKING AND REFRIGERATING MACHINERY.

Head Office: 35, Queen Victoria Street, London, E.C.4. *Works:* Birmingham, Brighton, Bombay and Calcutta. *Cable Address:* "Separator, Cannon, London." *Codes:* A.B.C. (5th Edition), A1, Engineering, Broomhall's, Western Union, Bentley's.

Lightfoot Refrigeration Co., Ltd.—*continued.*

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Head Office : 188, Fleet Street, London, E.C.4. *Works :* Broadheath Works, Altrincham, Cheshire. *Cable Address :* "Linotype, London." *Codes :* A.B.C. (4th and 5th Editions), Lieber's and Western Union.

AGENTS OVERSEAS :

Australasia—Carmichael & Co., Ltd., 115, Pitt Street, Sydney. **Belgium**—Desmet & Asiel, 332, Rue Royale, Brussels. **Canada**—Linotype & Machinery, Ltd., c/o Canadian Linotype, Ltd., 68, Temperance Street, Toronto. **China**—Jardine, Matheson & Co., Ltd. (Engineering Dept.), Hong Kong and Shanghai. **Denmark**—Lange & Raaschou, 34, Kompagnistraede, Copenhagen. **Egypt**—Linotype & Machinery, Ltd., 7, Rue Gameh Charkass, Cairo. **France**—Société Linotype Française, 10, Rue de Valois, Paris. **Greece**—Linotype & Machinery, Ltd., 5, Place Sts Theodores, Athens. **Holland**—P. Van Dijk, 155, Warmoesstraat, Amsterdam. **India**—Linotype & Machinery, Ltd., 3, Council House Street, Calcutta. **Italy**—Società Linotype Italiana, 9, Via due Macelli, Rome (7) and 9, Corsa Porta Nuovo, Rome. **Japan**—Jardine, Matheson & Co., Ltd., No. 1, Yokohama. **Norway**—Sandberg & Co., 8, Kongensgade, Christiania. **Portugal**—F. Street & Co., Ltd., Rua do Poco dos Negros, Lisbon, and 64, Rua de Sa da Bandeira, Oporto. **S. Africa**—Linotype & Machinery (South Africa), Ltd., 86, Bree Street, Cape Town. **Spain**—Sociedad Linotype, Espanola, 33, Calle de Goya, Madrid, and 315, Calle de Corcega, Barcelona. **Straits Settlements**—Linotype & Machinery, Ltd., 1, Raffles Quay, Singapore. **Sweden**—A. B. Gust, Carlsson & Co., 5, Vasagatan, Stockholm.

Lister & Co., Ltd.

(*See Advertisement Section, page* **144.**)

SPINNERS, MANUFACTURERS, DYERS AND FINISHERS. *Head Office :* Bradford. *Works :* Bradford, Nuneaton and Addingham. *Cable Address :* "Lister, Bradford." *Code :* A.B.C. (5th Edition).

AGENTS OVERSEAS :

Canada—Henderson & Smyth, Ltd., 507, Read Buildings, Montreal, and Hees Buildings, 52, Bay Street, Toronto ; N. R. Miller (Furnishings), 33, Richmond Street West, Toronto. **U.S.A.**—H. B. Clarke, R. J. Rendall & Co., 248, Fourth Avenue, New York. **Norway**—H. Fegth (Dress Silks Dept.) 1, Bankpladsen, Christiania. **Sweden**—Karl Gronwall, Regeringsgatan 40, Stockholm. **Holland**—S. de Jong (Dress Silks Dept.), P. C. Hooftstraat 162, Amsterdam ; M. Goldsmidt (Furnishings), Reguliersgracht 10, Amsterdam. **Belgium**—H. Swartebroeckx, 200, Avenue de la Chasse, Brussels. **Switzerland**—E. H. Schlatter, Freigutstrasse 14, Zurich. **France**—Alfred Jefford, 34, Rue Richer, Paris ; Ed. de Rham (export only), 78, Rue d'Hauteville, Paris. **S. America**—Glyn & Co., Ltd. (Dress Silks only), Rincon 87, Buenos Aires. **Australia**—Montgomery & Sprod (Dress Silks), P.O. Box 1109, Melbourne ; Pomeroy House, P.O. Box 2287, York Street, Sydney ; R. J. Byrne (Furnishings only), London Chambers, Elizabeth Street, Melbourne. **New Zealand**—Robert Malcolm, Ltd. (Dress Silks Dept.), 79, Lichfield Street, Christchurch. **Egypt**—Giulio Padova & Co., P.O. Box 457 Cairo ; P.O. Box 238, Alexandria.

Lister (R. A.) & Co., Ltd.

(*See Advertisement Section, page* **111.**)

MAKERS OF AGRICULTURAL MACHINERY.

Head Office and Works : Dursley, Glos. *Cable Address :* "Machinery, Dursley, England." *Codes :* A1, A.B.C. (5th Edition), Bentley's, and Private.

OVERSEAS ADDRESSES :

Belgium—R. A. Lister & Co., Ltd., Landen. **Canada**—R. A. Lister & Co. (Canada), Ltd., Winnipeg, Toronto. **Austria**—R. A. Lister & Co., Ltd., Vienna.

Liverpool & London & Globe Insurance Co., Ltd.

Head Office : 1, Dale Street, Liverpool. *London Chief Office :* 1, Cornhill, London, E.C.3.

OVERSEAS ADDRESSES :

U.S.A.—80, William Street, New York ; Corner Carondelet and Common Streets, New Orleans ; Insurance Exchange Building, Chicago ; 444, California Street, San Francisco. **Canada**—343, Dorchester Street West, Montreal. **Australia**—62, Pitt Street, Sydney ; Molesworth Street, Lismore (N.S.W.) ; 51, Hunter Street, Newcastle ; 415 and 417, Collins Street, Melbourne ; Moorabool Street, Geelong (Victoria) ; Surrey Chambers, St. George's Terrace, Perth (W.A.) ; 36, Grenfell Street, Adelaide (S.A.) ; Queen and Eagle Streets, Brisbane (Queensland) ; Flinders Street, Townsville (North Queensland) ; Cathedral Square, Christchurch (N.Z.), 28, Shortland Street, Auckland (N.Z.) ; 13, Crawford Street, Dunedin (N.Z.) ; 58, St. John Street, Launceston (Tasmania) ; 131, Macquarie Street, Hobart (Tasmania). **S. Africa**—61, St. George's Street,

Liverpool & London & Globe Insurance Co., Ltd. —*continued.*

Cape Town; Permanent Buildings, 91, Fox Street, Johannesburg; Marine Chambers, Gardiner Street, Durban, Natal. **Japan**—74, Yamashita-cho, Yokohama. **India**—9, Clive Street, Calcutta. **China**—St. George's Building, Chater Road, Hong Kong. **S. America**—Calle Reconquista 46, Buenos Aires. **Mexico**—2a, Calle di Capuchinas, No. 37.

AGENCIES IN ALL OTHER COMMERCIAL CENTRES.

Liverpool Refrigeration Co., Ltd.

REFRIGERATING AND ICE-MAKING MACHINERY, IRON COILS, ETC.

Head Office: Colonial House, Liverpool. *Works:* Coalbrookdale (Salop) and Warrington. *Cable Address:* "Polar, Liverpool, England." *Code:* A.B.C. (5th Edition).

AGENTS OVERSEAS:

France—Societe des Condenseurs Delas, 103, Rue St. Lazare, Paris; La Grande Union des Industries & Des Transports de l'Entente, 36, Rue de Liege, Paris.

Liverpool Saccharine & Vesta Oil & Cake Mills, Ltd. (The).

GLUCOSE, FLAKED MAIZE, MAIZE FLOUR, CATTLE FEEDING CAKE, OIL SEED CRUSHERS AND REFINERS.

Registered Office: 20-22, Blackstock Street, Liverpool. *Works:* 16-20, Blackstock Street, Liverpool, and 2, Banastre Street, Liverpool. *Cable Address:* "Audax, Liverpool."

Llanelly Steel Co. (1907), Ltd.

Head Office and Works: Llanelly. *Cable Address:* "Dur, Llanelly."

Lloyds Bank Ltd.

(*See Advertisement Section, page* **193.**)

BANKERS.

Head Office: 71, Lombard Street, London, E.C.3. *Cable Address:* "Branchage, Stock, London." *Codes:* All.

OVERSEAS ADDRESSES OF AUXILIARY BANK:

France—Lloyds & National Provincial Foreign Bank, Limited, 3, Place de l'Opera, Paris; Biarritz, Bordeaux, Havre, Marseilles, Nice, St. Jean de Luz. **Belgium**—Lloyds & National Provincial Foreign Bank, Limited, Brussels, Antwerp. **Germany**—Lloyds & National Provincial Foreign Bank, Limited, Cologne. **Switzerland**—Lloyds & National Provincial Foreign Bank, Limited, Zurich.

Lloyd (F. H.) & Co., Ltd.

Head Office and Works: James Bridge Steel Works, Nr. Wednesbury. *Cable Address:* "Steel, Darlaston." *Code:* A.B.C.

Loders & Nucoline, Ltd.

(*See Advertisement Section, page* **234.**)

OIL REFINERS.

Head Office: 1, Crutched Friars, London, E.C.3. *Works:* Cairn Mills, Factory Road, Silvertown, E., and Albert Mills, Hammersmith, W. *Cable Address:* "Nucoa, London." *Codes:* A.B.C. (5th Edition), and Private.

London & Brazilian Bank, Limited.

(*See Advertisement Section, page* **200.**)

Head Office: 7, Tokenhouse Yard, London, E.C. 2. *Cable Address:* "Neophyte" (for Head Office and all Branches).

BRANCHES OVERSEAS:

Brazil—Rio de Janeiro, Manaos, Pará, Maranhao, Ceará, Pernambuco, Bahia, Santos, São Paulo, Curityba, Rio Grande Do Sul, Pelotas, Porto Alegre. **River Plate**—Montevideo, Buenos Aires, Rosario. **United States**—56, Wall Street, New York (Agency). **Portugal**—Lisbon, Oporto. **France**—5, Rue Scribe, Paris.

London, County, Westminster & Parr's Bank, Ltd.

Address: 41, Lothbury, London, E.C.2. *Cable Address:* "Forty-one, Stock, London." *Codes:* Lieber's, Lieber's (5 Letter), A.B.C., Bentley's, Peterson, Western Union, Broomhall's Complete Cipher, Broomhall's Complete Cipher (5 Letter).

OVERSEAS ADDRESSES:

Belgium—London County Westminster & Parr's Bank, Ltd., 41, Place de Meir, Antwerp; 114 and 116, Rue Royale, Brussels. **Spain**—Avenida del Conde de Penalver, 21 y 23, Madrid; Paseo de Gracia, 8 and 10, Barcelona; Gran Via 9, Bilbao; Alfredo Calderon 13, and Pascual y Genis 6, Valencia. **France**—London County & Westminster Bank (Paris), Ltd., 22, Place Vendome, Paris; 22 and 24, Cours de l'Intendance, Bordeaux; 37, Rue de la Republique, Lyons; 29, Rue Cannebiere, Marseilles; 6, Rue Lafayette, Nantes.

London Electric Wire Co. & Smiths, Ltd.

CABLES AND WIRES FOR ALL ELECTRICAL PURPOSES, COPPER WIRES AND STRIPS, BRONZE WIRES.

Head Office: 7, Playhouse Yard, Golden Lane, London, E.C.1., England. *Works:* Leyton and Manchester. *Cable Addresses:* "Electric, London"; "Anaconda, Manchester." *Codes:* A.B.C. (5th Edition), Western Union (Universal Edition), Western Union (5 Letter), Bentley's and Marconi.

London Works Iron Co.

Address: Halesowen Street, Oldbury.

Longbotham (Jonathan) & Sons, Ltd.

COAL, TIMBER, IRON AND STEEL.

Address: Carbon Chambers, Water Lane, Sheffield.

Longbottom (H.) & Co., Ltd.

(*See Advertisement Section, page* **7.**)

MAKERS OF TEXTILE GOODS, ETC.

Head Office: 22, Mill Street, Bradford, Yorks. *Works:* Showers Mill, Frizinghall, Bradford. *Cable Address:* "Showers, Bradford." *Code:* A.B.C. (5th Edition).

AGENTS OVERSEAS:

France—B. Ingle, 54, Rue de Paradis, Paris. **Norway**—F. C. Sundt, 4, Prinsengate, Christiania. **Canada**—Edwin J. Powell, Empire Buildings, 64, Wellington Street West, Toronto. **Australia**—A. E. Wittey, c/o Sand's Sample Rooms, 374, George Street, Sydney.

Longbottom (H.) & Co., Ltd.—*continued.*

Eyypt—Jeffery W. Eady, 10, Chareh Torguemane, Cairo. **Spain**—Carasa & Cilveti, Lda, Alfonso VIII, 7, San Sebastian. **Denmark**—The Produce Agency, Holbersgade 17, Copenhagen. **Switzerland**—Hans A. Mueller, 46, Thalacker, Zurich. **Sweden**—Carl A. Johansson, Regieringsgaten 105, Stockholm.

Lovell (A.) & Co.

MAKERS OF BOOTS AND SHOES.

Head Office: Bank Road, Kingswood, Bristol. *Works:* Kingswood, Bristol. *Cable Address:* "Boots, Kingswood, Glos."

AGENTS OVERSEAS:

France—Philippe Troeder, 6, Rue de Chantilly, Paris. **Belgium**—Charles Monier, 33-35, Rue de la Caserne, Brussels. **Sardinia**—Giovanni Pepitoni, Cagliari, Sardinia, Via Roma 59. **S. Africa**—P. Israel, P.O. Box 472, Johannesburg. **India**—Peshori Lall & Co., Jhelum, Punjab.

Low Temperature Carbonisation, Ltd.

OIL AND MOTOR SPIRIT FROM COAL, POWER GAS, AMMONIA SULPHATE, SMOKELESS FUEL.

Head Office: 14-16, Cockspur Street, London, S.W.1. *Works:* Barugh, Nr. Barnsley, Yorks.

Lowrie (W. P.) & Co., Ltd.

SCOTCH WHISKY, VATS, CASKS, CASES, BOTTLES, ETC.

Head Office: 44, Washington Street, Glasgow. *Works:* Glasgow, Convalmore, Dufftown.

Lucas (Joseph), Ltd.

Head Offices and Works: Gt. King Street, Birmingham. *Cable Address:* "Lucas, Birmingham." *Code:* A.B.C. (5th Edition).

Ludlow Bros. (1913), Ltd.

(*See Advertisement Section, page* **100.**)

(*Associated with Walls, Ltd., Birmingham; The Midland Expanded Metal Co., Ltd., Tipton; Stocal Enamelled Tile and Iron Co., Ltd., Burton-on-Trent.*)

GALVANIZED, JAPANNED, TINNED AND ENAMELLED HOLLOW-WARE.

Head Office: 202, Fazeley Street, Birmingham. *Works:* Birmingham and Lye. *Cable Address:* "Ludlow, Birmingham." *Code:* A.B.C.

AGENTS OVERSEAS:

Europe—Shermays, Ltd., 78, Cheapside, London, E.C.2. **S. America**—Jacob & Co., St. Paul's Street, Portland Square. Bristol. **Canada**—Wakyte Manufacturing Co., Ltd., Winnipeg. **Federated Malay States**—Hallam & Co., Kuala Lumpur.

Lupton (Wm.) & Co.

(*See Advertisement Section, page* **44.**)

MAKERS OF WOOLLEN AND WORSTED CLOTHS.

Head Office: Whitehall Mills, Leeds. *Works:* Leeds and Pudsey. *Cable Address:* "Lupton, Leeds." *Code:* A.B.C. (5th Edition).

Lye (T.) & Sons.

Head Office and Works: New Bedford Road, Luton. *Cable Address:* "Lye, Luton." *Codes:* Marconi International, Bentley's, A.B.C. (5th Edition).

AGENTS OVERSEAS:

France—25, Rue Montrosier, Neuilly-s-Seine, Paris; C. Clert, 9, Rue Neuve, Lyon. **Denmark**—Edv. Hellesen, Chr. Den IX, Gale No. 6, Copenhagen; Vivtor J. Jensen, Kobmagergade No. 28, Copenhagen. **Belgium**—Lemesre & Co., 9, Rue Zérezo, Bruxelles (Nord), Brussels.

Lyle (Abram) & Sons, Ltd.

MAKERS OF REFINED SUGAR AND GOLDEN SYRUP.

Head Office: 21, Mincing Lane, E.C.3. *Works:* Plaistow Wharf, Victoria Docks, London, E. *Cable Address:* "Lyle, Fen, London." *Codes:* A.B.C. (5th Edition), Western Union and Bentley's.

Lysaght (John), Ltd.

(*See Advertisement Section, page* **101.**)

IRONMASTERS, GALVANISERS AND CONSTRUCTIONAL ENGINEERS.

Head Office: St. Vincent's Iron Works, Bristol. *Works:* Bristol, Newport (Mon.), Scunthorpe (Lincs.), Wolverhampton and London. *Cable Address:* "Lysaght, Bristol." *Codes:* Bentley's Phrase, Western Union, Lieber's, A.B.C., etc.

OVERSEAS ADDRESSES:

Australia—8, Spring Street, Sydney (N.S.W.); 24, Queen Street, Melbourne, Victoria; 21, Mouatt Street, Fremantle; Grenfell Street, Adelaide; Ann Street, Brisbane, Queensland. **New Zealand**—Ballance Street, Wellington.

AGENTS OVERSEAS:

S. Africa—H. Alers Hankey, 52-53, Standard Bank Chambers, Johannesburg; J. M. Moir, 321, Smith Street, Durban. **Argentine Republic**—Hess, Menzies & Co., Maipu 71, Buenos Aires. **Canada**—A. C. Leslie & Co., Ltd., 560, St. Paul Street, Montreal. **Uruguay**—Edward Cooper & Son, Montevideo.

M

Macfie & Sons.

Head Office and Works: 34, Moorfields, Liverpool. *Cable Address:* "Macfie, Liverpool."

Macintosh (Chas.) & Co., Ltd.

(*See Advertisement Section, page* **12.**)

MANUFACTURERS OF GENERAL INDIARUBBER GOODS.

Head Office and Works: Cambridge Street, Manchester. *Cable Address:* "Macintosh, Manchester." *Code:* A.B.C. (5th Edition).

OVERSEAS AGENTS IN ALL THE PRINCIPAL FOREIGN COUNTRIES.

Maclachlan (G. & J.), Ltd.

WHISKY, BEER, ETC.

Head Office: Castle Chambers, Glasgow. *Works:* Auchentoshan Distillery, Duntocher, N.B.; Castle Brewery, Craigmillar, Midlothian. *Cable Address:* "Maclachlan, Glasgow." *Codes:* A.B.C. (5th Edition), Marconi.

MacLellan (P. & W.), Ltd.

(*See Advertisement Section, page* **97.**)

RAILWAY WAGGONS, BRIDGES AND CONSTRUCTIONAL WORK, ETC.

Head Office: 129, Trongate, Glasgow. *Registered Office:* 108A, Cannon Street, London, E.C. *Works:* Clutha Works, Glasgow. *Cable Address:* "MacLellan, Glasgow." *Codes:* A.B.C. (4th and 5th Editions), A1, Lieber's, Western Union, Watkins (16th Edition), and Engineering.

AGENTS OVERSEAS:

Brazil—Allen C. Nathan, Caixa 516, Rio de Janiero. **France**—M. Lucas-Shadwell, 12, Rue du Helder, Opera, Paris (IXe). **Caucasus**—A. B. Goodman, Norvorossisk. **Egypt**—F. Woodley Page, Helwan, Cairo. **S. Africa**—Harvey & Russell, Ltd., Central House, Simmonds Street, Johannesburg.

Macniven & Cameron, Ltd.

STEEL PENS, FOUNTAIN PENS, ACCOUNT BOOKS, AND STATIONERY.

Head Office: Blair Street, Edinburgh. *Works:* (Account Books), Waverley Works, Edinburgh; (Stationery), Bowersburn Works, Leith; (Fountain Pens), Cameron House, 26, St. Bride Street, London, E.C.; (Steel Pens), Waverley Pen Works, Birmingham. *Code:* A.B.C. (5th Edition).

Maconochie Bros., Ltd.

MAKERS OF PRESERVED PROVISIONS.

Head Office: Millwall, London, E.14. *Works:* Millwall, London; Stornoway, Scotland; Fraserburgh, Scotland; Raglan Works, Lowestoft. *Cable Address:* "Maconochie, London." *Codes:* A1, A.B.C. (4th and 5th Editions), Lieber's.

AGENTS OVERSEAS:

Australia—Bernard Cohen, Esq., Bull's Chambers, 14, Moore Street, Sydney. **New Zealand**—Ellis & Manton, Ltd., G.P.O. Box 222, Wellington. **S. Africa**—H. Parker Wood, P.O. Box 3493, Johannesburg; P.O. Box 348, Cape Town; 12, Hulston's Buildings, Smith Street, Durban. **Rhodesia**—McDowell Millar & Co., P.O. Box 100, Salisbury. **British E. Africa, German E. Africa, Zanzibar**—F. C. Holmes & Co., Limoru. **Egypt**—A. R. Giro, Giro's Buildings, Alexandria. **Sudan**—E. Yersin, P.O. Box 229, Khartoum. **Morocco**—S. L. Balensi, Gibraltar. **Tripoli**—(Except Bengasi), W. F. Riley, Tripoli Barbary, North Africa; (Bengasi only), Fratelli Miceli. **Tunis**—Maurice Nahum, 118, Rue de Serbie. **India**—G. Atherton & Co., Head Office, 8, Clive Street, Calcutta; Oakley Bowden & Co., 15, Armenian Street, Madras. **Burma**—Harperink Smith & Co., P.O. Box 116, Rangoon. **Straits Settlements**—Newall & Claxton, 3, Malacca Street, Singapore. **Java**—E. Dunlop & Co. **Saigon** (French China)—E. Cropley & Co., P.O. Box 111, Saigon. **Japan**—J. Witkowski & Co., Ltd., P.O. Box 56, Yokohama. **U.S.A.**—The Maclaren Imperial Cheese Co., 125, Congress Street, West Detroit. **Canada**—The Maclaren Imperial Cheese Co., 69, Front Street East, Toronto. **Brazil**—John Moore & Co., Rio de Janeiro. **Peru**—C. E. Cock, Lima, Peru. **Demerara**—F. J. Bankart, Georgetown. **Bolivia**—Mason Bros., & Co., Oruro. **Jamaica**—Lascelles, de Mercado & Co., 14-14½, Port Royal Street, Kingston. **Greece**—G. A. Kolas, Piraeus. **Beyrouth** (Syria)—J. R. Camilleri. **Cyprus**—Vondiziano Bros., Larnaca. **Malta**—Philip Falzon, Valetta. **Belgium**—Francis Vochten, 305, Longue rue d'Argile, Antwerp. **France**—Durieux & Rodriguez, 13-15, Rue de Petites Ecuries, Paris; Beaurain Bros., & Saison, Boulogne-sur-Mer, Boulogne; Gustave Leleu, 51, Quai George V., Le Havre; The Anglo-French Import and Export, 5, Rue de l'Ormeau, Marseilles.

McAlpine (Sir Robert) & Sons.

PUBLIC WORKS CONTRACTORS.

Head Office: 50, Pall Mall, London, S.W.1. *Works:* Clydebank and Ellesmere Port. *Cable Address:* "Ferrocrete, Charles, London." *Codes:* Marconi International and A.B.C. (5th Edition).

OVERSEAS ADDRESS:

France—195-197, Rue de Brequerecque, Boulogne.

McConnel & Co., Ltd.

COTTON SPINNERS.

Head Office and Works: Ancoats, Manchester. *Cable Address:* "Upland, Manchester." *Codes:* A.B.C. (4th and 5th Editions), Marconi International, and Bentley's.

McCrum, Watson & Mercer, Ltd.

(*See Advertisement Section, page* **150.**)

MAKERS OF LINEN GOODS.

Head Office: 13, Linenhall Street, Belfast. *Works:* Milford, Armagh. *Cable Address:* "Macrum." *Codes:* A.B.C. (5th Edition), Western Union).

OVERSEAS ADDRESSES:

U.S.A.—13-15, White Street, New York. **Australia**—93, York Street, Sydney. **S. Africa**—P.O. Box 4669, Johannesburg.

McEwan (William) & Co., Ltd.

BREWERS.

Head Office and Brewery: Fountain Brewery, Edinburgh. *Cable Address:* "Macewan, Edinburgh." *Codes:* A.B.C. (5th and 6th Editions), Western Union, Marconi International.

McIntyre, Hogg, Marsh & Co., Ltd.

SHIRTS, COLLARS, CUFFS AND PYJAMA SUITS.

Head Office: 2, 3, and 4, New Basinghall Street, London, E.C.2. *Works:* Taunton, Derry, Upton Park, Manchester, etc. *Cable Address:* "Makog Ave, London."

AGENTS OVERSEAS:

Holland—Jacobs & Vles, Keizersgracht 407, Amsterdam. **Egypt**—J. W. Eady, 10, Chareh Torguemane, P.O. Box 1078, Cairo. **Denmark**—Viggo Cohn, Jernbanegade 6, Copenhagen. **Norway**—Brodr. Klundbye, Storgaden 26, Christiania. **Jamaica**—W. Wilson, Ltd., Wilson Buildings, 83, King Street, Kingston. **Barbadoes**—W. Wilson, Ltd., P.O. Box 56, Bridgetown. **India**—H. M. Fielding, Victoria Buildings, Parsee Bazar Street, Fort, Bombay. **S. Africa**—Muir & Gaunt, P.O. Box 1245, Cape Town, Cape Colony, and P.O. Box 6199, Johannesburg, Transvaal. **New Zealand**—Dawson & Maudsley, Ltd., Harris Street, Wellington. **British East Africa**—Kettles-Roy & Dawson, Ltd., P.O. Box 100, Nairobi. **Newfoundland**—Messrs. A. & W. Rodger, St. Johns.

McKechnie Bros., Ltd.

EXTRUDED METALS, BRASS RODS, BRASS STAMPINGS, GUNMETAL AND PHOSPHOR BRONZE INGOTS, ANTIFRICTION METALS, SULPHATE OF COPPER, ETC.

Sulphate of Copper Works—

Head Office: 26, Chapel Street, Liverpool. *Works:* Sulphate of Copper Works, Widnes. *Cable Addresses:* "Auriferous, Liverpool"; "McKechnie, Widnes." *Codes:* A.B.C. (5th Edition) and Private.

Metal Works—

Head Office: Rotton Park Street, Birmingham. *Works:* Metal Works, Rotton Park Street, Birmingham. *Codes:* Lieber's (5 Letter), and A.B.C. (5th and 6th Editions), Marconi International, and Private.

McLaren (J. & H.), Ltd.

TRACTION ENGINES, STEAM PLOUGHING MACHINERY, AND GENERAL ENGINEERS.

Head Office and Works: Midland Engine Works, Leeds. *Cable Address:* "McLaren, Leeds." *Codes:* A.B.C. (4th and 5th Editions), Lieber's, Western Union, Engineering.

Major & Co., Ltd.

MAKERS OF COAL TAR PRODUCTS.

Head Office: Sculcoates, Hull. *London Office:* 12, Norfolk Street, Strand, W.C. 2. *Works:* Sculcoates, Hull; Monmore Green, Wolverhampton; Chesterton, Staffs. *Cable Addresses:* "Major, Hull"; "Major, Wolverhampton"; "Majocolim, 'Phone, London." *Codes:* A.B.C. (5th Edition), Western Union (Universal and 5 Letter Code).

Manchester & Liverpool District Banking Co., Ltd.

(*See Advertisement Section, page* **196.**)

BANKERS.

Head Office: Spring Gardens, Manchester. *London Office:* 75, Cornhill, E.C.1. *Cable Address:* "District Bank, Manchester." *Codes:* A.B.C. (5th Edition), Lieber's, Bentley's Complete Phrase, Peterson's International Banking, Marconi International.

AGENTS AND CORRESPONDENTS OVERSEAS:

Finland—A/B. Nordiska Foreningsbank, Helsingfors. **Sweden**—A/B. Svenska Handelsbanken, Stockholm; Skandinaviska Kreditaktiebolaget, Gothenburg; Stockholms Enskilda Bank, Stockholm. **Holland**—Amsterdamsche Bank, Amsterdam; Rotterdamsche Bankvereeniging, Rotterdam. **Hungary**—Anglo-Austrian Bank, Budapest. **France**—Banca Italiana di Sconto, Paris; Credit Lyonnais, Paris; Lazard Freres et Cie., Paris and Mayenne; Societe Generale, Paris. **Spain**—Banco de Barcelona, Barcelona; E. Sainz e Hijos, Madrid. **Greece**—Bank of Athens. **Russia**—Banque de Commerce, Warsaw; Russian Bank for Foreign Trade, Moscow; Volga-Kama Commercial Bank, Petrograd. **Switzerland**—Banque Federale, Zurich; Credit Suisse, Zurich. **Servia**—Banque National Priv. du Royaume de Serbie, Belgrade **Austria**—Bohmische Union Bank, Prague; Oestereichische Laenderbank, Vienna. **Norway**—Centralbanken for Norge, Christiania. **Italy**—Credito Italiano, Genoa. **Portugal**—Credit Franco-Portugais, Lisbon and Oporto. **Denmark**—Danske Landmandsbank, Copenhagen. **Germany**—Dresdner Bank, Berlin; Lloyds & National Provincial Foreign Bank, Ltd., Cologne. **Turkey**—Imperial Ottoman Bank; National Bank of Turkey, Constantinople. **Belgium**—Lazard Bros., & Co., Antwerp; Societe Generale de Belgique, Brussels. **India and The East**—Bank of Bengal; Bank of Bombay; Bank of Madras; National Bank of India, Ltd.; Chartered Bank of India, Australia and China; Hong Kong and Shanghai Banking Corporation; Yokohama Specie Bank, Ltd.; Thomas Cook & Son. **Australasia**—Bank of Adelaide; Bank of Australasia; Bank of New South Wales; Bank of New Zealand; Commercial Bank of Australia, Ltd.; Commonwealth Bank of Australia; National Bank of Australasia, Ltd.; Union Bank of Australia, Ltd.; Western Australian Bank; Thomas Cook & Son. **West Indies**—Colonial Bank; Royal Bank of Canada. **Canada**—Bank of Montreal; Canadian Bank of Commerce; Imperial Bank of Canada; Royal Bank of Canada; Union Bank of Canada. **U.S.A.**—Brown Bros. & Co., New York, Boston and Philadelphia; Hanover National Bank, New York; Alexander Brown & Sons, Baltimore; Canadian Bank of Commerce; Lazard Frères, New York; Merchants Loan and Trust Company, Chicago; First National Bank, Cincinnati; First National Bank of Denver; First and Old Detroit National Bank, Detroit; Farmers' and Merchants' National Bank, Los Angeles; Louisville National Banking Co., Louisville; First National Bank, Mobile; Bank of Pittsburg, Pittsburg; State National Bank of St. Louis; Bank of California at Portland (Oregon), San Francisco, Seattle and Tacoma; Thomas Cook & Son. **S. America**—London and River Plate Bank Ltd.; British Bank of South America, Ltd.; London and Brazilian Bank, Ltd. **Egypt**—Anglo-Egyptian Bank Ltd.; Imperial Ottoman Bank; National Bank of Egypt; Thomas Cook & Son. **S. Africa**—National Bank of South Africa Ltd.; Standard Bank of South Africa Ltd.; Thomas Cook & Son.

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(*See Advertisement Section, page* **46.**)

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Marlow (John) & Sons, Ltd.

(*See Advertisement Section, page* **299.**)

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(*See Advertisement Section, page* **59.**)

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(*See Advertisement Section, page* **58.**)

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(*See Advertisement Section, page* **69.**)

MAKERS OF ELECTRICAL APPARATUS AND MACHINERY.

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(*See Advertisement Section, page* **298.**)

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Head Office and Works: Embo Leather Works Dewsbury Road, Leeds.

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(*See Advertisement Section, page* **149.**)

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(*See Advertisement Section, page* **223.**)

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(*See Advertisement Section, page* **164.**)

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Head Office: 89, Granby Street, Leicester. *Works:* Derby, Hinckley, Burbage, Mountsorrel, Thurmaston, Leamington, Broughton Astley. *Cable Address:* "Britannia, Leicester." *Codes:* A.B.C., Marconi and Bentley's.

AGENTS OVERSEAS:

Canada—Duncan Bell, Ltd., 409, Hammond Block, Winnipeg; 301, St. James Street, Montreal; 33, Melinda Street, Toronto. **New Zealand**—Robt. Malcolm, Ltd., 79, Lichfield Street, Christchurch. **Australia**—W. T. Ross Williamson, 174, Queen Street, Melbourne. **Egypt**—J. W. Eady, Chareh Torguemane 10, Cairo. **France**—E. H. Epp, Rue Lafayette 94, Paris. **Holland**—S. Kulker, Sarphatistraat 87, Amsterdam. **S. Africa**—Edwards & Deverall, Cape Town and Johannesburg.

Morgan, Crossley & Co., Ltd.

WICKS FOR CANDLES, LAMPS AND STOVES; COTTON SMALLWARES, WOVEN AND BRAIDED.

Head Office: Ducie Mills, Miles Platting, Manchester. *Works:* Manchester, Ripley and Chesterfield. *Cable Address:* "Wick, Manchester." *Codes:* A.B.C. (3rd and 5th Editions), Bentley's.

Morgan Crucible Co., Ltd. (The).

(*See Advertisement Section, page* **56.**)

Head Office and Works: Battersea Works, Church Road, London, S.W.11. *Cable Address:* "Crucible, Phone, London." *Codes:* A.B.C. (4th and 5th Editions), A1, Lieber's and Western Union (1919, 5 Letter and Universal Edition), and Bentley's.

AGENTS OVERSEAS AND ADDRESSES:

France—Marshall & Cie., 17, Rue du Pont-aux-Choux, Paris. **U.S.A.**—The Morgan Crucible Co., Ltd., 519-521-523, West 38th Street, New York. **Argentine**—The Morgan Crucible Co. (South America), Ltd., Calle Fitzroy, 1458, Buenos Aires. **Belgium**—Ste. Cve. Morgan & Cie., 28, Rue du Pont-Neuf, Brussels.

Morris (Wm.), & Sons, Ltd.

MAKERS OF WORSTED YARNS.

Head Office: Stansfeld Mill, Triangle, Nr. Halifax. *Works:* Stansfeld Mill, Triangle; Corporation Mill, Sowerby Bridge; Hollings Mill, Sowerby Bridge (Combing Dept.). *Cable Address:* "Morris, Triangle." *Code:* A.B.C. (5th Edition).

Morse (E. & G.).

MALTSTERS AND BREWERS.

Head Office: Crown Street, Lowestoft. *Works:* Crown Brewery, Lowestoft.

Morton (Francis) & Co., Ltd.

BRIDGEWORK, ROOFING AND CONSTRUCTIONAL STEELWORK, AND IRON CASTINGS, ETC.

Head Office and Works: Hamilton Ironworks, Garston, Liverpool. *London Office:* 17, Victoria Street, Westminster, S.W.1. *Cable Address:* "Ironsides, Liverpool." *Codes:* A.B.C. (4th and 5th Editions), Western Union.

AGENT OVERSEAS:

Australia—Webster & Co., Ltd., Mary Street, Brisbane.

Morton & Joynt, Ltd.

MAKERS OF CLOTHING FOR MEN AND BOYS.

Head Office and Works: Hudson Road, Leeds.

Moseley (David) & Sons, Ltd.

MAKERS OF INDIA RUBBER GOODS.

Head Office and Works: Chapel Field Works, Ardwick, Manchester. *Cable Address:* "Moseleys, Manchester. *Codes:* A.B.C. (4th, 5th and 6th Editions), A1, Lieber's.

AGENTS IN ALL PRINCIPAL COUNTRIES.

Motherwell Bridge Co., Ltd.

BRIDGES AND OTHER CONSTRUCTIONAL WORK.

Head Office and Works: Motherwell Bridge Works, Motherwell. *Cable Address:* "Bridge, Motherwell."

Mountford (Fredk.) (Birmingham), Ltd.

(*See Advertisement Section, page* **99.**)

TAPER PINS AND MACHINE PARTS, AND GENERAL ENGINEERS.

Head Office and Works: Fremo Works, Lifford, Birmingham. *Cable Address:* "Fremo, Birmingham." *Codes:* A.B.C. (5th Edition), Marconi International.

OVERSEAS ADDRESSES:

France—19, Avenue du Bel Air, Paris. **Holland**—Leidschekade 102, Amsterdam. **Australia**—Wynard Buildings, Carrington Street, Sydney (N.S.W.).

Muntz's Metal Co., Ltd.

SOLID DRAWN COPPER AND BRASS TUBES, MUNTZ'S METAL SHEETS, RODS, CONDENSER PLATES, ETC.

Head Office and Works: French Walls, Nr. Birmingham. *Cable Address:* "Muntzs, Birmingham." *Codes:* A.B.C. (5th Edition) and Bentley's.

AGENTS OVERSEAS:

Australia—Elder Smith & Co., Adelaide; Royle & Co., Sydney. **New Zealand**—Richardsons McCabe & Co., Auckland. **S. America**—Ramsay Bellamy & Co., Buenos Aires.

Murex Company, Ltd.

MANUFACTURERS OF TUNGSTEN POWDER, FERRO TUNGSTEN AND STEEL ALLOYS, SEPARATORS OF ORES CONTAINING WOLFRAM, TIN, COPPER, BISMUTH, MOLYBDENITE, ARSENIC, SULPHUR. PURCHASERS OF PURE AND COMPLEX WOLFRAM SCHEELITE ORES.

Head Office: 1, London Wall Buildings, London, E.C.2. *Works:* Rainham, Essex, and 40, Cuba Street, Millwall, E. *Cable Address:* "Muretic, London." *Code:* Broomhall's (5 Letter).

Musgrave & Co., Ltd.

Head Office and Works: St. Ann's Iron Works, Mountpottinger, Belfast. *Cable Address:* "Centigrad, Belfast." *Codes:* Lieber's, A.B.C. (5th Edition), Engineering Telegraph (2nd Edition).

AGENTS OVERSEAS:

France—Musgrave & Co., Ltd., 3, Rue de Metz, Levallois-Perret (Seine). **India**—Duncan, Stratton & Co., Post Box 64, Bombay; Keymer, Bagshaw & Co., Ltd., 5, Mangoa Lane, Calcutta. **Cuba**—Duncan Stewart & Co., Ltd., 514, Lonja, Havana. **Dutch Indies**—Lindeteves-Stokvis, J. W. Brouwersplein 2, Amsterdam (Holland). **Argentine**—T.E.M.A., Campania de Exportacion Tecnica America 760B, Mitre, Buenos Aires. **Holland**—D. S. M. Kalker, 21, St. Anthonies Breestraat, Amsterdam; R. S. Stokvis & Zonen, Rotterdam.

Musgrave (John) & Sons, Ltd.

STEAM ENGINES, TURBINES, MILL GEARING, ETC.

Head Office and Works: Globe Iron Works, Bolton. *Cable Address:* "Musgrave, Bolton." *Codes:* A.B.C. (5th Edition), A1.

AGENTS OVERSEAS:

India—W. H. Brady & Co., Ltd., Bombay and Calcutta. **Russia**—L. Knoop, Petrograd and Moscow. **China**—Mitsui & Co., Ltd., Shanghai. **Japan**—Mitsui & Co., Ltd., Tokio.

N

Nagersheth (M.), Sons.

(*See Advertisement Section, page* **157.**)

SPINNERS AND MACHINERY EXPORTERS.

Head Office: 25-29, Church Gate Street, Fort, Bombay, India. *Works:* Ahmedabad, Calcutta, Naderdi, Bombay. *Cable Address:* "Nagersheth, Bombay." *Codes:* A.B.C. (5th and 6th Editions), and Private.

OVERSEAS ADDRESSES:

France—72, Boulevard Haussmann (VIIIe), Paris. **India**—12, Mission Row, Calcutta; "Wanda Villa," Ahmedabad.

Napier (D.) & Son, Ltd.

(*See Advertisement Section, page* **17.**)

MAKERS OF 6-CYL. MOTOR CARRIAGES AND AERO ENGINES.

Head Office: 14, New Burlington Street, London, W.1. *Works:* 211, Acton Vale, London, W.3. *Cable Address: Showrooms,* "Nitrifier, Reg., London"; *Works,* "Moneyer, Act., London." *Codes:* A.B.C. (5th Edition), Western Union, Marconi, Lieber's.

AGENTS OVERSEAS:

N. Africa—Anglo-American Garage, Algiers. **India**—Pyne Hughman & Co., Calcutta; Ford Automobiles, Ltd., Bombay; Spencer & Co., Madras. **Dutch East Indies**—Lintner & Co., Soerabaya. **Spain**—Garage Zubiaga Calle Rodriquez 6, Bilbao. **Holland**—E. A. Archer, Messrs. B. V. Haarlemsche Auto-Centiale, Statinsplein 15, Haarlem. **U.S.A.**—Robertson Cole Co., New York. **S. America**—Graham Rowe & Co., Valparaiso; Kavanagh & Cia., Buenos Aires. **Australia**—(Queensland and N.S.W.)—Bradley & Holland, Albert Street, Brisbane. **New Zealand**—Pacific Motors, Ltd., Auckland.

National Galvanizers, Ltd.

GALVANIZERS AND HOLLOW-WARE.

Head Office and Works: Pallion New Road, Sunderland. *Cable Address:* "National." *Codes:* A.B.C. (5th Edition), Bentley's, Marconi International.

AGENTS OVERSEAS:

Egypt—S. Sachs & Co., Alexandria. **Syria**—Georges Cassir, Beyrouth. **India**—Sen & Pandit, 66, Bentick Street, Calcutta; Eastern Trading Co., Karachi; M. Allabux & Co., Carnac Road, Bombay. **N. Africa**—Abensur & Co., Ltd., 205, Avenue Du General Drude, Casablanca, Morocco; Moise H. Levy, Fez, Morocco; Samuel S. Bendaham, Mogador, Morocco; Isaac Behar, Marrakech, Morocco; J. L. Laredo, Mazzagan, Morocco; Sion Elie, Boite Postal 132, Rabat, Morocco; Solomon M. Pariente, Tangier, Morocco; W. J. England, Casella Postale No. 341, Tripoli; R. Ammanou, Tunis. **Cyprus**—Ne. G. Malikides, P.O. Box No. 3, Limassol. **China**—H Stephens & Co., Ltd., 16-22, Queen's Road, Central, Hong Kong. **Italy**—Antonio & Nicola, De Grecio, Bari; M. Watteville, Via Tommaso Grosse 8, Milano.

National Galvanizers, Ltd.—*continued.*

Palestine—Elias Akaoui & Sons, Jaffa; M. Dixon Goff, Jaffa. **British East Africa**—Geo. Irwine & Sons, Victoria Street, Nairobi. **New Zealand**—Jno. Geo. Hill, 26, Buller Street, Wellington. **Sicily**—R. Pojero & Co., Sumac Steam Mills, Palermo. **Asia Minor**—Fred. W. Hornstein, Smyrna. **Turkey**—P. M. Braggiotti, Appartments Du Tunnel Rue Zumbul Pera; P. Stephens, Parkatschoritsch, Uskub. **Finland**—Rantakonttori Osahrylitio, Jarnkontoret Aktiebolag; Nicoligatan, 21, Helsingfors. **Iceland**—Th. Svensson & Co., Reykjavik. **Chile**—R. H. Charles & Co., Valparaiso.

National Gas Engine Co., Ltd.

London Office: 75A, Queen Victoria Street, London, E.C.4. *Works:* Ashton-under-Lyne, Nr. Manchester, England. *Telegraphic Addresses:* "National, Aston-under-Lyne, England"; "Forgerons, London, England." *Codes:* A.B.C. (4th and 5th Editions), Lieber's, Western Union.

AGENTS IN ALL COUNTRIES.

National Omnibus & Transport Co., Ltd.

MAKERS OF STEAM VEHICLES.

Head Office: 16, St. Helen's Place, London, E.C. *Works:* Moulsham Works, Chelmsford, Essex.

Neckwear, Ltd.

(*See Advertisement Section, page* **81.**)

MAKERS OF HOSIERY AND ALL KINDS OF KNITTED WEAR.

Head Office and Works: Hosiery Manufacturers, Macclesfield. *Cable Address:* "Neckwear, Macclesfield."

Nettlefold (F. J.), Esq.

Address: 1, Cambridge Gate, Regent's Park, London, N.W.1.

Neuchatel Asphalte Co., Ltd. (The).

NATURAL ROCK ASPHALTE AND ROAD PAVING MATERIALS.

Head Office: 58, Victoria Street, London, S.W.1. *Cable Address:* "Areuse, London." *Codes:* Western Union, Premier and A.B.C. (5th Edition).

OVERSEAS BRANCHES:

Australia—395-7, Collins Street, Melbourne; 24, Pulteney Street, Adelaide; Gittos Street, Auckland; 45, Adelaide Street, Brisbane; 111, Lichfield Street, Christchurch; 11, Crawford Street, Dunedin; 25, Henry Street, Fremantle; Collins Street, Hobart; 16, Spring Street, Sydney (N.S.W.). **Austria**—6, Giselastrasse, Vienna. **Brazil**—Caixa 1185, Rio de Janeiro (109, Avenida Rio Branco). **Denmark**—Hans Guldmann, Vestervoldgade 103, Copenhagen. **Italy**—Chieti, Scafa. **Egypt**—Sh Sahel el Ghelal, Cairo. **Germany**—52, Behrenstrasse, Berlin. **Greece**—Commercial Bank Buildings, Sophocles Street, Athens. **Holland**—74, Damrak, Amsterdam. **Hungary**—Vilmos Császár-ut, Budapest. **Switzerland**—Travers. **Uruguay**—221, Casilla Correo, Montevideo (Calle Ituzaingo No. 1461).

CONCESSIONAIRES FOR THE SALE OF ASPHALTE FROM THE MINES IN THE VAL DE TRAVERS.

Belgium—The Belgian Neuchatel Asphalte Co., Ltd., 15, Chaussée de Wavre, Brussels. **France**—La Société de Pavage et des Asphaltes de Paris, 61, Quai dé Javel, Paris; Societe L'Asphalte, 2, Quai de l'Hopital, Lyon. **Switzerland**—E. R. Zetter & Co., Soleure.

New Delaville Spelter Co., Ltd.

MAKERS OF SPELTER.

Head Office: Newton Chambers, Cannon Street, Birmingham.

New Hucknall Colliery Company, Ltd.

Head Office: Huthwaite, Mansfield, Notts. *Collieries:* New Hucknall, Bentinck and Welbeck Collieries. *Cable Address:* "Fenwick, Huthwaite."

New Hudson, Ltd.

BICYCLES, MOTOR VEHICLES, AIRCRAFT FITTINGS AND SPECIALISED ENGINEERING PRODUCTIONS.

Head Office and Works: Icknield Street Works, Birmingham. *Cable Address:* "Wonder, Birmingham." *Code:* A.B.C. (5th Edition).

Newell (Ernest) & Co., Ltd.

CEMENT MAKING MACHINERY AND PLANT FOR ARTIFICIAL MANURES.

Head Office and Works: Misterton, via Doncaster. *Cable Address:* "Newells, Misterton, Gainsborough." *Codes:* A.B.C. (5th Edition), Western Code, Engineering Code (2nd Edition).

AGENTS OVERSEAS:

S. Africa—Bellamy & Lambie, Johannesburg; Whitmore & Jackson, Bulawayo, Rhodesia. **New Zealand**—Richardson, McCabe & Co., Wellington; British-Australian Engineering Co. **Roumania**—Associated British Manufacturers, Ltd. **Italy**—Mario Tansini, Milano. **N. Africa**—Algerian Engineering Co., Ltd., Algiers.

Newey Bros., Ltd.

HOOKS AND EYES, SNAP FASTENERS, HAIRPINS AND GENERAL METAL SMALLWARES.

Head Office and Works: 105-127, Brearley Street, Birmingham. *Cable Address:* "Pelican, Birmingham." *Code:* A.B.C. (5th Edition).

AGENT OVERSEAS:

France—G. Leighton, 7, Rue Thorel, Paris.

Newton, Chambers & Co., Ltd.

(*See Advertisement Section, page* **50.**)

Head Office and Works: Thorncliffe Ironworks and Collieries, Nr. Sheffield. *Cable Address:* "Newton, Sheffield." *Code:* A.B.C. (5th Edition).

AGENT OVERSEAS:

Australia—William H. Hunt, 340, Spencer Street, Melbourne.

Nicholson (Wm.) & Son (Leeds), Ltd.

CONTRACTORS AND TIMBER MERCHANTS.

Address: Prospect Works, Sheaf Street, Leeds.

North British Diesel Engine Works, Ltd.

MAKERS OF INTERNAL COMBUSTION ENGINES.

Head Office and Works: South Street, Whiteinch, Glasgow. *Cable Address:* "Fordomount, Glasgow."

North British Locomotive Co., Ltd.

Head Office: 110, Flemington Street, Glasgow. *Works:* Hyde Park, Queen's Park and Atlas—all at Glasgow. *Cable Address:* "Loco, Glasgow." *Codes:* Western Union, Lieber's, Bentley's, Engineering (2nd Edition).

AGENTS OVERSEAS:

S. America—Franklin & Herrera, Ltd., Buenos Aires, Argentine. **S. Africa**—Reunert & Lenz, Ltd., Johannesburg. **Australasia**—Denny Bros., Ltd., Perth (W.A.); Richardson, McCabe & Co., Ltd., Wellington (N.Z.). **Spain**—José Goenaga, Bilbao.

North British Rubber Co., Ltd. (The).

(*See Advertisement Section, page* **174.**)

Head Office and Works: Castle Mills, Edinburgh. *Export Department:* 204, Tottenham Court Road, London, W.1. *Cable Addresses:* "Weba, Edinburgh" and "Clinchex, 'Phone, London." *Codes:* A.B.C. (4th and 5th Editions), Lieber's, Western Union, Marconi International.

OVERSEAS ADDRESSES:

Canada—43, Colborne Street, Toronto. **France**—36, Rue Guersant, Paris. **Belgium**—39, Rue des Chartreux, Brussels. **Sweden**—Uplandsgatan 20, Stockholm. **S. America**—1776, Lavalle, Buenos Aires.

North Eastern Marine Engineering Co., Ltd.

(*See Advertisement Section, page* **40.**)

Head Office: Wallsend-on-Tyne, England. *Works:* Wallsend-on-Tyne, and Sunderland, England. *Cable Address:* "News, Wallsend, England." *Codes:* A.B.C. (5th Edition), Bentley's Complete Phrase.

North Eastern Steel Co., Ltd.

Address: Middlesbrough-on-Tees.

North Lonsdale Iron & Steel Co., Ltd.

Head Office and Works: Ulverston, Lancs.

Northern Exploration Co., Ltd.

IRON ORE, COAL, MARBLE, ASBESTOS, ETC.

Address: 62, London Wall, London, E.C.2. *Cable Address:* "Norexploco, London."

Northern Press & Engineering Co., Ltd.

ROTARY WEB PRINTING AND STEREOTYPING MACHINERY.

Head Office: Barrington Street, South Shields. *Works:* South Shields. *Cable Address:* "Norpress, South Shields. *Code:* A.B.C. (5th Edition).

AGENT OVERSEAS:

Australia—J. A. Burke, 5, Primrose Buildings, 255A, George Street, Sydney.

Northfleet Paper Mills, Ltd.

MAKERS OF PAPER—HIGH GRADES.

Address: Northfleet, Kent. *London Address:* 34-40, Ludgate Hill, London, E.C.4.

Norton & Gregory, Ltd.

(*See Advertisement Section, page* **127.**)

INSTRUMENTS, WOODWORK, AND DRAWING OFFICE SUPPLIES.

Head Office: Buckingham Gate, London, S.W.1. *Works:* Willesden, Harlesden, Westminster. *Cable Address:* "Nortazo, London."

O

Oakeshott & Finnemore.

MAKERS OF MEN'S BOOTS AND SHOES.

Head Office and Works: Talbot Road, Northampton. *Sample Offices:* 212, Moorgate Station Chambers, London, E.C.2. *Cable Addresses:* "Oakmore, London"; "Oakmore, Northampton." *Codes:* A.B.C. (5th Edition), Marconi.

Oddy (James), Junr.

MAKERS OF MOHAIR AND WORSTED DRESS GOODS.

Head Office and Works: Birkenshaw, Nr. Bradford, Yorks.

Old Castle Iron & Tinplate Co., Ltd.

TINPLATES, TERNEPLATES, AND BLACKPLATE.

Head Office and Works: Llanelly, Carmarthenshire.

Oldroyd (Wm.) & Sons, Ltd.

MAKERS OF GLUE AND GELATINE.

Head Office and Works: Scott Hall Mills, Buslingthorpe, Leeds. *London Office:* 9, Mincing Lane, E.C.3. *Cable Address:* "Gelatine, Leeds." *Codes:* A.B.C. and Marconi.

Olive & Partington, Limited.

MAKERS OF PAPER.

Head Office and Works: Turn Lee Mills, Glossop, England. *Cable Address:* "Pino, Glossop." *Codes:* A.B.C. (5th Edition), Premier.

Orbito Company, Ltd.

JEWELLERY MANUFACTURERS.

Head Office and Works: Stewart Street, Spring Hill, Birmingham. *Cable Address:* "Orbito, Birmingham." *Code:* A.B.C. (5th Edition).

AGENT OVERSEAS:

Australia—H. Thring Phipson, 42, Pitt Street, Sydney.

Orr, Watt & Co., Ltd.

Head Office and Works: Lanarkshire Bridge Works, Motherwell, Nr. Glasgow. *Cable Address:* "Structural, Motherwell." *Code:* A.B.C. (5th Edition).

Orr's Zinc White, Limited.

MAKERS OF ZINC WHITE.

Head Office and Works: Vine Chemical Works, Widnes. *Cable Address:* "Orr, Widnes." *Codes:* A.B.C. (5th Edition), Bentley's, Lieber's, Western Union, Private and Marconi International.

Osborn (Samuel) & Co., Ltd.

Head Office: Clyde Steel Works, Sheffield. *Works:* Clyde Steel Works, Rutland Works and Brookhill Works, Sheffield. *Cable Address:* "Osborn, Sheffield." *Codes:* A1, A.B.C. (5th Edition), Bentley's, Broomhall's Imperial Combination, Lieber's, Moreing's, and Western Union.

AGENTS OVERSEAS:

Transvaal—Samuel Osborn (South Africa), Ltd., P.O. Box 3162, Johannesburg. **Canada**—Samuel Osborn (Canada), Ltd., 312, Dominion Express Building, Montreal. **U.S.A.**—B. M. Jones & Co., Inc., 192, Chambers Street, New York. **Mexico**—J. G. Masson, La Celle de Capuchinas No. 32 (Apartado 565), Mexico D.F. **S. America**—Mason Brothers & Co., Casilla Correo No. 104, Oruro, Bolivia; W. J. McClelland & Co., Caixa Postal 1908, Rio de Janeiro, Brazil; Moore & Tudor, Buenos Aires. **New South Wales**—Gibson, Battle & Co., Ltd., 535, Kent Street, Sydney. **Victoria**—Gibson, Battle (Melbourne), Pty., Ltd., 84-88, William Street, Melbourne. **New Zealand**—T. Wingfield, 21, Swanson Street, Auckland. **Siberia**—Denny, Mott & Dickson (Vladivostock), Vladivostock. **India**—Macbeth Bros. & Co., Ltd., Standard Buildings, Hornby Road, P.O. Box 119, Bombay; T. R. Pratt, 301-302, Bowbazar Street, P.O. Box 215, Calcutta. **Japan**—Geo. Blundell & Co., 41, Yamashita-cho, P.O. Box 50, Yokohama; 11, Shirauogashi, Kyobashiku, Tokio. **France**—Agence Europeene de Machines-Outils, 30, Boulevard Bineau, Paris-Levallois. **Italy**—S. Bingham & Co., Ltd., Via Melzo, Milan. **Denmark**—Soren Hogh, G1, Kongevej, 1, Copenhagen B. **Norway**—Styrup & Hogh, Toldbodgaten 6, Christiania. **Morocco (Tunis) and Algiers**—Franco-British Commercial Co., Ltd., English Post Box 37, Tangier, and 35 Route de Mediouna, Casablanca. **Belgium**—Anglo-Belgian Engineering Co., 37-9, Boulevard Anspach, Brussels. **Burmah**—Douglas & Grant, Ltd., 75, Merchant Street, P.O. Box 459, Rangoon. **Cochin-China**—Douglas & Grant, Ltd., Rue Chaignean, P.O. Box 127, Saigon. **Siam**—Douglas & Grant, Ltd., P.O. Box 000, Bangkok. **Newfoundland**—Wm. Heap & Co., Ltd., Renouf Buildings, St. John's. **Egypt**—Alexandria Engineering Works, Babel Karasta Street, Alexandria. **Straits Settlements**—J. Hodgins, Box No. 9, Central Post Office, Singapore. **Chile, Peru, and Equador**—South American Trading Co., Valparaiso, Lima, and Guayacquil. **Holland**—N/V Yzer-en Staalhandel v/h Th. Struycken & Co., Haarlem and Rotterdam. **Switzerland**—J. Mauler, Case Mont Blanc, Geneva. **Poland**—Douglas & Jackowicki, Trebacka 1, Warsaw. **Spain**—Jose Penalva, Gonzalo Julia 7, Valencia; S. A. Gemas, Alameda 34, Malaga. Compania Politecnica, Pasaje del Commercio 21, Linares (Jaen); Agustin Banque, Caserio de Genova, Palma de Mallorca; Murrieta y Cia., Hurtado de Amezaga 17, Bilbao; Gumersindo Garcia, at Marques de San Esteban 50, Gijon; Barbara de Braganza 10, Madrid; Fontanella 16, Barcelona.

P

Padmore & Barnes, Ltd.

MAKERS OF "MOCCASIN" REGD. BOOTS AND SHOES.

Head Office and Works: "Moccasin" Works, Northampton. *London Office and Show Rooms:* 43, Berners Street, Oxford Street, London, W.1. *Code:* A.B.C. (5th Edition).

Palmer Tyre, Ltd.

(*See Advertisement Section, page* **24.**)

BICYCLE, MOTOR BICYCLE, MOTOR AND AERO TYRES AND WHEELS.

Head Office: 119, 121, 123, Shaftesbury Avenue, London, W.C.2. *Works:* Silvertown, London, E. *Cable Address:* "Tyricord, London." *Codes:* A.B.C. (5th Edition), Bentley's Phrase, Marconi.

OVERSEAS ADDRESSES:

France—The Palmer Tyre, Ltd., 24, Boulevard de Villiers, Levallois Perret. **Holland**—The Palmer Tyre, Ltd., Stadhouderskade 91, Amsterdam. **India**—The Wellington Cycle & Motor Co., Churchgate Street, Bombay; The India Rubber Co., Calcutta. **Ceylon**—Walker Sons & Co., Ltd., Colombo. **Belgium**—J. Monge & Co., 21, Rue des Fabriques, Bruxelles. **Straits Settlements**—R. T. Reid & Co., Penang. **Siam**—The Siamese Tobacco, Bankok. **Burmah**—Watson & Son, Rangoon. **Japan**—Futabaya & Co., Tokyo. **China** (South)—John Gibbs & Co., Hong Kong. **Spain**—E. Marin, Principe 15, Madrid. **S. Africa**—S. Fisher & Simmons, Cape Town, Durban and Johannesburg. **Jamaica**—J. R. Brandon, Kingston. **Cyprus**—A. Jemaly, Nicosia. **Mauritius**—Pearmain & Co., Port Louis. **S. America**—Gilberto Risso, Montevideo, Uruguay; The India Rubber, Gutta Percha & Telegraph Works Co., Buenos Aires, Argentine; F. Huth & Co., 12, Chile. **Denmark**—Otto Drewson, Copenhagen. **Sweden**—Aktiebolaget A. Wiklunds Maskin & Velccipedfabric, Stockholm. **Barbadoes**—Newsam & Co., Bridgetown. **Trinidad**—Dick & Wells, **Egypt**—The Central Motor Warehouse, Rue Emad El-Dine No. 11, Cairo. **Sumatra**—R. T. Reid & Co., Penang. **Canary Islands**—Jose Lison, Las Palmas. **Malta**—G. Tanti Bellotti, Valetta. **Gibraltar**—S. C. Serruya.

ASSOCIATED BRITISH MANUFACTURERS (NEAR EAST), LTD:

Greece—3, Kapnicarea Street, Athens. **Roumania**—97, Viitorului, Bucharest. **Servia**—Knez Michaelova Ulitza 21, Belgrade. **Turkey**—40-42, Union Han, Galata, Constantinople. **Montenegro and Albania**—13, Gjorgjiceva, Zagreb.

Palmers Shipbuilding & Iron Co., Ltd.

(*See Advertisement Section page* **35.**)

Head Office: Hebburn-on-Tyne. *Works:* Hebburn and Jarrow. *Cable Address:* "Palmers, Hebburn."

Park Gate Iron & Steel Co., Ltd.

Head Office and Works: Parkgate Works, Rotherham, Yorks.

Parker (Charles).

MAKER OF BOOTS AND SHOES.

Head Office and Works: Higham Ferrers, Northamptonshire. *Cable Address:* "Kempson, Higham Ferrers." *Code:* A.B.C. (5th Edition).

Parkes (E.) & Co., Ltd.

Head Office and Works: Atlas Ironworks, West Bromwich.

Parsons (C. A.) & Co., Ltd.

STEAM TURBINES, BLOWERS, COMPRESSORS, ELECTRICAL ALTERNATORS, GEARING AND SEARCHLIGHT REFLECTORS.

Head Office and Works: Heaton Works, Newcastle-on-Tyne. *Cable Address:* "Turbo, Newcastle-on-Tyne." *Codes:* A1, A.B.C. (5th Edition), Western Union, New Business, Bentley's.

AGENTS OVERSEAS:

Australia—Wm. Adams & Co., Ltd., 521-3, Collins Street, Melbourne, and 175, Clarence Street, Sydney. **S. Africa**—S. Sykes & Co., Southern Life Buildings, Main Street, Johannesburg. **India**—Burn & Co., 7, Hastings Street, Calcutta. **Japan**—A. R. Brown, Macfarlane & Co., Ltd. (Yonei Shoten), Tokio. **U.S.A.**—J. Platt & Co., 2, Rector Street, New York.

Parsons Marine Steam Turbine Co., Ltd.

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Paton, Calvert & Co., Ltd.

(*See Advertisement Section, page* **5.**)

Head Office: The "Matchless" Works, Binns Road, Old Swan, Liverpool. *London Office and Factory:* 174-178, St. John Street, Clerkenwell, London, E.C. *Cable Addresses:* (Head Office): "Brilliant, Liverpool." (London Office): "Compoboxes (Smith), London." *Codes:* A.B.C. (5th Edition), Western Union, Marconi.

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(*See Advertisement Section, page* **182.**)

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(Pearson's Antiseptic Co., Ltd.)

(*See Advertisement Section, page* **210.**)

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(*See Advertisement Section, page* **217.**)

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Peek, Frean & Co., Ltd.

(*See Advertisement Section, page* **1.**)

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(*See Advertisement Section, page* **105.**)

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(*See Advertisement Section, page* **184.**)

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(*See Advertisement Section, page* **281.**)

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(*See Advertisement Section, page* **221.**)

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(*See Advertisement Section, page* **137**.)

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(*See Advertisement Section, page* **159.**)

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(*See Advertisement Section, page* **142**.)

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(*See Advertisement Section, page* **112**.)

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(*See Advertisement Section, page* **18.**)

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(*See Advertisement Section, page* **270.**)

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R

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(*See Advertisement Section, page* **6.**)

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(*See Advertisement Section, page* **95.**)

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Ransomes, Sims & Jefferies, Ltd.

(*See Advertisement Section, page* **109.**)

ENGINES, BOILERS AND AGRICULTURAL MACHINERY.

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AGENTS FOR ALL COUNTRIES: Richard Thomas & Co., Ltd., 47-51, King William Street, London, E.C.4.

Redpath, Brown & Co., Ltd.

(*See Advertisement Section, page* **114.**)

IRON AND STEEL CONSTRUCTIONAL ENGINEERS.

Head Office: 2, St. Andrew Square, Edinburgh. *Works:* Edinburgh, London, Manchester, and Glasgow. *Cable Address:* "Evaporate, Edinburgh."

Rees Roturbo Manufacturing Co., Ltd.

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Richards (J. H.) & Co., Ltd.

(*See Advertisement Section, page* **305.**)

ENGINEERS AND METAL MANUFACTURERS.

Head Office and Works: Cato Street North, Saltley, Birmingham. *Code:* A.B.C. (5th Edition).

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Roberts (T.) & Sons.

(*See Advertisement Section, page* **41.**)

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Head Office and Works: Portland Shoe Works, Leicester. *Cable Address:* "Portland, Leicester." *Codes:* A.B.C. (5th Edition), Marconi International.

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Robinhood Engineering Works, Ltd.

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BRITISH, COLONIAL AND FOREIGN AGENCIES AT Alexandria, Antofagasta (Chili), Amsterdam, Antwerp, Barranquilla, Batavia (Java), Belfast, Bombay, Bangkok, Brussels, Buenos Aires, Bucharest, Cairo, Calcutta, Cape Town (S.A.), Caracas, Colombo, Dublin, Durban (S.A.), East London (S.A.), Florence, Gand, Genoa, Havana, Helsinsfors, Hong Kong, Iquique (Chili), Jamaica, Johannesburg, Kobe, Lima (Peru), Lisbon, Lorenco Marques, Madras, Malmo, Milan, Manilla (P.I.), Mexico, Monte Video, Montreal, Moscow, Nairobi, Odessa, Palermo, Panama, Petrograd, Port Elizabeth, Porto Allegro, Brazil, Pretoria, Rangoon, Rio de Janeiro, Rio Grande, Rome, Rotterdam, San Juan, Sao Paulo (Brazil), Santiago, Simla, Shanghai, Soerabaja, St. Louis, Stockholm, Toronto, Tokyo, Turin, Trinidad, Valparaiso (Chili), Vancouver, Venice, Verviers, Winnipeg, Yokohama.

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Rose, Downs & Thompson, Ltd.

(*See Advertisement Section, page* **128.**)

MAKERS OF OIL MILL MACHINERY, GRAB DREDGERS, ETC.

Head Office and Works: Old Foundry, Hull. *Branch Offices:* 12, Mark Lane, London (*Telegraphic Address:* "Arroser, London"); 20, Foochow Road, Shanghai (*Telegraphic Address:* "Rosedowns, Shanghai"). *Cable Address:* "Rose, Hull." *Codes:* A.B.C. (5th and 6th Editions), Leiber's, Marconi, Western Union, Bentley's, etc.

Rose, Hewitt & Co.

(*See Advertisement Section, page* **145.**)

MAKERS OF COTTON TEXTILES.

Head Office: 10, Minshull Street, Manchester. *Works:* Broughton Road Mills, Skipton. *Cable Address:* "Arctic, Manchester"; "Rosewito, London." *Codes:* A.B.C., Bentley's and Private

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Rose (Sir W. A.) & Co., Ltd.

(*See Advertisement Section, page* **242.**)

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Head Office: 1, Fenchurch Avenue, London, E.C.3. *Works and Refinery:* Rose's Wharf, Millwall, E.14. *Cable Address:* "Warose, Fen, London." *Codes:* A.B.C. (5th Edition), Marconi (No. 1).

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Rowbotham (Thomas).

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(*See Advertisement Section, page* **71.**)

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S

Sale (H. B.), Ltd.

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Salmon & Welch, Ltd.

MAKERS OF HOSIERY.

Head Office: Great Central Street, Leicester. *Cable Address:* "Woven, Leicester."

Salt (Sir Titus), Bart., Sons & Co., Ltd.

(*See Advertisement Section, page* **191.**)

MOHAIR, ALPACA, CAMELHAIR, CASHMERE AND WORSTED YARNS, COATINGS, COSTUMES, AND DRESS GOODS.

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Salt Union, Ltd.

(*See Advertisement Section, page* **213.**)

SALT AND CHEMICALS.

Head Office: Colonial House, Liverpool. *Works:* In England: Cheshire, Worcestershire and Durham. In Ireland: Carrickfergus. *Cable Address:* "Saltcellar, Liverpool." *Codes:* A.B.C. (5th Edition), Western Union and Private.

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Salter (George) & Co., Ltd.

(*See Advertisement Section, page* **78.**)

MAKERS OF SPRINGS, SPRING BALANCES, PRESSURE GAUGES, ETC.

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Head Office: Holland House, Bury Street, London, E.C.3. *Cable Address:* "Ocyadnas, London." *Code:* A.B.C.

OVERSEAS ADDRESSES:

Karachi, Bombay, Calcutta, Buenos Aires, Rosario, New York, Antwerp, Rotterdam.

Sanderson Brothers & Newbould, Ltd.

(*See Advertisement Section, page* **278.**)

CRUCIBLE STEEL, HIGH SPEED STEEL, SAWS, FILES AND EDGE TOOLS, REAPER SECTIONS, ROLLER BARS, MACHINE KNIVES, SWORDS AND BAYONETS AND TWIST DRILLS.

Head Office and Works: Sheffield. *Cable Addresses:* "Sanderson, Sheffield"; "Bold, Sheffield." *Codes:* A1, A.B.C., Lieber's, Western Union.

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Canada—H. A. Drury Co., Ltd., 317, Craig Street, Montreal, and 66, Adelaide Street, East Toronto. **U.S.A.**—Robert K. Greaves & Co., 549w, Washington Boulevard, Chicago, and 752, David Whitney Building, Detroit, also 95, Liberty Street, New York. **S. Africa**—Bartle & Co., Loveday House, Loveday Street, Johannesburg. **Australia**—Benson Bros., Ltd., 76-78, Liverpool Street, Sydney, and 71-75, Queen's Bridge Street, Melbourne; Frank Wilson & Sons, A.M.P. Chambers, William Street, Perth. **New Zealand**—Henry Roberts, c/o New Zealand Express Co.'s Offices, Wellington. **India**—Alcock Ashdown & Co., 40, Church Gate Street, Bombay; E. Spinner & Co., P.O. Box 177, Bombay.

Sandycroft, Ltd.

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London Office: 4, Broad Street Place, London, E.C.2. *Works:* Sandycroft, Nr. Chester.

Sankey (Joseph) & Sons, Ltd.

IRON AND STEEL SHEETS, HYDRAULIC FORGINGS, ETC.

Head Office: Albert Street Works, Bilston. *Works:* Albert Street Works, Bilston; Bankfield Works, Bilston; Manor Sheet Iron Works, Wolverhampton; Hadley Castle Works, Wellington, Shropshire. *Cable Address:* "Sankey, Bilston." *Codes:* A.B.C. (5th Edition) and Lieber's.

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Saxby & Farmer, Ltd.

(The Consolidated Signal Company, Ltd.)

(*See Advertisement Section, page* **92.**)

Head Office : 53, Victoria Street, Westminster, London, S.W.1. *Works :* Chippenham, Wilts., England. *Cable Address :* "Signalmen, London." *Codes :* Bentley's, A.B.C. (5th Edition), A1.

OVERSEAS ADDRESS :

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AGENTS OVERSEAS :

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AGENTS OVERSEAS :

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Scott (Walter), Ltd.

MAKERS OF IRON AND STEEL.

Head Office and Works : Leeds Steel Works, Leeds, Yorks.

Scott's Shipbuilding & Engineering Co., Ltd.

SHIPBUILDERS AND ENGINEERS.

Head Office : Greenock.

Seamless Steel Boat Co., Ltd.

PRESSED SEAMLESS STEEL LIFEBOATS, CUTTERS, BARGES AND LAUNCHES.

Head Office and Works : Calder Vale Road, Wakefield. *Cable Address :* "Boat, Wakefield." *Code :* A.B.C. (5th Edition).

AGENT OVERSEAS :

France—Pierre Taconet, Havre.

Sedgwick, Collins & Co., Ltd.

MEMBERS OF LLOYDS, AND INSURANCE BROKERS.

Head Office : 7, Gracechurch Street, London, E.C.3.

Selson Engineering Co., Ltd.

SHAPING MACHINES, RADIAL DRILLING MACHINES AND OTHER MACHINE TOOLS.

Head Office : Selson House, 83-85, Queen Victoria Street, London, E.C.4. *Works :* St. Georges Road, Coventry. *Cable Address :* "Selsoneer, London." *Codes :* A.B.C. (4th and 5th Editions), A1, Engineering (2nd Edition), Lieber's, Western Union.

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France—22, Boulevard Richard Lenoir, Paris. **Italy**—9, Corso Vittorio Emanuele, Turin ; 5, Piazza Castello, Milan. **Australia**—565-7, Little Bourke Street, King Street, Melbourne. **Belgium**—V. Heroufosse, 15, Rue du Lombard, Brussels.

Senior (George) & Sons, Ltd.

MAKERS OF STEEL.

Head Office and Works : Ponds Forge, Sheffield.

Sentinel Waggon Works (1920), Ltd.

MAKERS OF STEAM MOTOR WAGGONS.

Works : Sentinel Waggon Works, Shrewsbury. *London Office :* 17, Iddesleigh House, Caxton Street, Westminster, S.W.1. *Cable Address :* "Alley, Shrewsbury." *Code :* A.B.C. (5th Edition).

Setten & Durward.

(*See Advertisement Section, page* **222.**)

MAKERS OF STATIONERS' SUNDRIES.

Head Office : 117 & 118, Livery Street, Birmingham. *London Office :* 35 & 37, Fann Street, Golden Lane, London, E.C.1. *Works :* Benson Road, Hockley, Birmingham. *Brussels Office :* 93, Rue Georges Moreau. *Cable Address :* "Sundries, Birmingham." *Codes :* A.B.C. (5th Edition), and Marconi.

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Australia—Horace Woollett, P.O. Box 1878, Sydney. **S. Africa**—W. G. & T. B. Spillane, 37-39, Fletcher's Chambers, Cape Town. **Argentine**—Weyand & Co., Calle Alsina 1088, Buenos Aires. **Canada**—A. R. Macdougall & Co., Ltd., 468-474, King Street West, Toronto. **Brazil**—Hardman & Co., Rio de Janeiro. **Egypt**—Schouella Cattell & Co., Cairo. **Chili, Bolivia and Peru**—Jones Robson & Co., Santiago.

Sharp (J. B. & W. R.), Ltd.

(*See Advertisement Section, page* **251.**)

MAKERS OF ANILINE COLOURS AND CHEMICALS.

Head Office and Works : Lumb Works, Edenfield, Lancs. *Cable Address :* "Jasarp, Edenfield, Lancs., England." *Code :* A.B.C. (5th Edition), Lieber's (5 Letter).

AGENTS OVERSEAS :

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Sheepbridge Coal & Iron Co., Ltd.

Head Office and Works : Sheepbridge Works, Chesterfield.

Sheffield Coal Co., Ltd.

COAL, COKE AND BY-PRODUCTS.

Head Office: Corn Exchange Buildings, Sheffield.

Sheffield Forge & Rolling Mills Co., Ltd.

Head Office and Works: Millsands Works, Sheffield.

Sheffield Simplex, Ltd.

Head Office: 20, Conduit Street, London, W.1. *Works:* Tinsley, Sheffield. *Cable Address:* "Shefflex, London." *Codes:* Western Union, Marconi.

Shelton Iron, Steel & Coal Co., Ltd.

Head Office: Stoke-on-Trent.

Ship Canal Portland Cement Manufacturers, Ltd.

(*See Advertisement Section, page* **187.**)

PORTLAND CEMENT AND LIMESTONE.

Head Office and Works: Ellesmere Port, Cheshire. *Cable Address:* "Cement." *Codes:* Marconi, A.B.C. (5th Edition), Western Union, Lieber's.

OVERSEAS ADDRESSES:

Cairo—P.O. Box 511. *Cables:* "Delanoy."

Short Bros. (Rochester & Bedford), Ltd.

(*See Advertisement Section, page* **32.**)

AERONAUTICAL ENGINEERS, SHIP AND BOAT BUILDERS.

Head Office: Whitehall House, 29-30, Charing Cross, S.W. *Works:* Seaplane Works, Rochester, Kent.

Shortland (John), Ltd.

MAKERS OF BOOTS AND SHOES.

Address: "Express Boot Works," Irthlingborough, Northamptonshire.

Silcock (R.) & Sons, Ltd.

MAKERS OF OILS, CAKES, ETC.

Head Office: Stanley Hall, Union Street, Liverpool. *Works:* Little Howard Street, Liverpool. *Code:* A.B.C. (5th Edition).

Simon (Henry), Ltd.

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Head Office: 20, Mount Street, Manchester. *Works:* Stalybridge and Bredbury, Nr. Stockport. *Cable Address:* "Reform, Manchester." *Codes:* A.B.C. (4th and 5th Editions), A1, Western Union, Bentley's and Private.

AGENTS OVERSEAS:

Australia—Henry Simon, Ltd., Sydney. **S. Africa**—MacDonald, Forman & Co., Ltd., Johannesburg. **India**—Duncan, Stratton & Co., Bombay. **Argentine**—Agar, Cross & Co., Ltd., Buenos Aires. **Chile**—Williamson & Co., Valparaiso. **Peru**—Duncan, Fox & Co., Lima. **Brazil**—F. H. Walter & Co., Rio de Janeiro **Uruguay**—Regusci & Voulminot, Montevideo. **Japan**—Sale & Frazer, Tokio. **Burma**—Stewart, Raeburn & Co., Rangoon. **Siam**—Barrow, Brown & Co., Bangkok. **France**—Etablissements Teisset-Rose-Brault, Paris.

Simpkin, Son & Emery.

MAKERS OF HOSIERY.

Head Office: Bond Street, Hinckley. *Works:* Bond Street, Hinckley and Aston Road, Nuneaton. *Cable Address:* "Simpkin, Hinckley." *Codes:* A.B.C. (5th Edition) and Marconi International (Vol. 1).

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Simpson (Wm.), (Manchester), Ltd.

(*See Advertisement Section, page* **233.**)

JAM, MARMALADE AND LEMON CHEESE MANUFACTURERS AND FOOD SPECIALISTS.

Head Office: Stretford Road, Urmston, Lancs. *Works:* The Garden Factory, Urmston, Lancs. *Cable Address:* "Simpsons, Urmston." *Code:* Western Union.

Simpson & Godlee, Ltd.

MAKERS OF FANCY COTTON PIECE GOODS.

Head Office: 8, Minshull Street, Manchester. *Works:* Entwistle (Nr. Bolton), Bury and Swinton. *Cable Address:* "Damask, Manchester." *Codes:* A.B.C. (5th and 6th Editions), Lieber's, Bentley's, Private.

AGENTS OVERSEAS:

Holland—Martin Hartog & Co., Van Eeghenstraat, 91, Amsterdam. **Belgium**—Edouard Hebden, 19, Rue de la Banque (Pres. Banque Nationale), Bruxelles. **Switzerland**—E. H. Schlatter, Freigutstrasse 14, Zurich 11. **France**—E. Heymann, 47, Rue de Paradis, Paris. **Australia**—Fielding & Chidgey, York Chambers, Market Street, Sydney; Fielding & Chidgey, Australian Buildings, Elizabeth Street, Melbourne. **Canada**—J. McRae, 106, Hammond Block, 63, Albert Street, Winnipeg; R. Norbury, 207, St. Nicholas Building, Montreal. **S. Africa**—J. H. Bell, 59, National Bank Buildings, Pritchard Street, Johannesburg, and at Solomons Buildings, 17, Long Street, Cape Town. **Sweden**—Heyman & Holmberg, Kungsportsplatsen 2, Goteborg, and Brunkebergstorg 14, Stockholm. **Germany**—W. Collasius & Sohn, Neuerwall 9, Hamburg. **British Columbia**—H. E. Walker, 600, Mercantile Building, Vancouver, B.C. **Italy**—C. Hardmeyer, Via Mascheroni 21, Milan.

Sinclair (Wm.) & Sons (Stationers), Ltd.

(*See Advertisement Section, page* **229.**)

MAKERS OF STATIONERY.

Main Office and Factories: Albert Works, Otley, Yorkshire. *Cable Address:* "Sinclairs, Otley." *Codes:* A.B.C. (5th Edition), and Lieber's.

OVERSEAS ADDRESSES:

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Singer & Co., Ltd.

MAKERS OF MOTOR CARS, CYCLES, ETC.

Address: Canterbury Street, Coventry.

Singer (J. W.) & Sons, Ltd.

(*See Advertisement Section, page* **249.**)

METAL WORK AND FITTINGS FOR ARCHITECTURAL, SHIPBUILDING AND ENGINEERING PURPOSES.

London Office: Effingham House, Arundel Street, W.C.2. *Works:* Frome, Somerset. *Cable Address:* "Metallifacture, Estrand, London." *Codes:* A.B.C. (5th Edition), Western Union.

Singleton & Priestman.

MAKERS OF CUTLERY.

Address: 58, Arundel Lane, Sheffield.

Sizaire-Berwick, Ltd.

(*See Advertisement Section, page* **20.**)

SIZAIRE-BERWICK AUTOMOBILES.

Head Offices: 27, Old Bond Street, London, W.1, and 13, Albemarle Street, London, W.1. *Works:* Park Royal, London, N.W.10. *Cable Address:* "Berworks, Harles, London." *Code:* A.B.C. (5th Edition).

FRENCH CONCESSIONAIRES:—Société de Construction de Voitures Automobiles, 28, Avenue des Champs Elysees, Paris, and 58, Rue d'Alsace, Courbevoie.

Skinningrove Iron Co., Ltd.

PIG IRON, STEEL, COKE AND COKE OVEN PRODUCTS.

Head Office: Saltburn-by-Sea. *Works:* Carlin How., R.S.O., Yorkshire. *Cable Address:* "Skinningrove, Saltburn-by-Sea."

Slazengers, Limited.

SPORTS, GAMES, AND INDIA RUBBER GOODS.

Head Office: Laurence Pountney Hill, Cannon Street, E.C.4. *Works*—Para Works, Woolwich. *Cable Address:* "Slazenger, London." *Codes:* A.B.C. (5th Edition) and Marconi International.

OVERSEAS ADDRESSES:

Canadian Branch—53, Yonge Street, Toronto. **S. Africa**—W. G. & T. B. Spillane, Cape Town. **Australia**—H. A. Parker (Proprietary), Ltd., Sydney. **New Zealand**—D. C. Peacock, Wellington. **China**—N. B. Ramsay, Shanghai. **Argentine**—H. L. Kidd & Co., Buenos Aires. **Uruguay**—Moore Bros., & Co., Montevideo. **Chile**—E. Mettais, Santiago de Chile. **Venezuela**—Gonzalez Jiminez, Caracas. **W. Indies**—A. Noel Croswell, Jamaica. **Belgium**—Mons P. de Borman, Brussels. **Italy**—L. Magnani, Parma. **Spain**—Daguilar & Fernandez, Madrid. **France**—M. Siton, Nice. **Denmark**—J. P. Lund, Copenhagen. **India**—E. Kemble & Co., Calcutta.

Smethurst (S. & J.), Ltd.

MANUFACTURERS OF BRICKS AND BUILDINGS.

Head Office and Works: Rochdale Road, Oldham.

Smith & Cartwright Bedstead Co., Ltd.

Head Office and Works: Anchor Works, Macdonald Street, Birmingham.

Smith & Wellstood, Ltd.

COOKING AND HEATING STOVES AND RANGES AND GENERAL IRONFOUNDERS.

Head Office and Works: Bonnybridge, Scotland. *Cable Address:* "Wellstood, Glasgow." *Code:* A.B.C. (5th Edition).

OVERSEAS ADDRESS: Smith & Wellstood, Ltd., c/o W. R. Peterson, P.O. Box 110, East London, Cape Colony.

Smith, Bulmer & Co.

(*See Advertisement Section, page* **303.**)

MAKERS OF WORSTED YARNS.

Head Office: Holmfield Mills, Halifax, Yorks. *Works:* Holmfield Mills, Keighley Mills, Halifax; Hare Street Mills, Halifax; Woodfield Mill, Cullingworth. *Cable Address:* "Wool, Halifax." *Codes:* Western Union, A.B.C. (5th Edition).

Smith (Frederick) & Company (Wire Manufacturers), Ltd.

(*See Advertisement Section, page* **66.**)

MAKERS OF IRON AND STEEL WIRE.

Head Office and Works: Caledonia Works, Halifax, Yorkshire. *Cable Address:* "Smith, Halifax." *Codes:* A.B.C. (4th and 5th Editions), Hamilton's (5-Letter Wire).

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Smith (John) & Sons, Ltd.

MAKERS OF WORSTED YARNS.

Head Office and Works: Field Head Mills, Bradford. *Cable Address:* "Smith, Bradford." *Code:* A.B.C.

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Address: 6, Oxford Street, Manchester.

Smith (S.) & Sons (Motor Accessories), Ltd.

SPEEDOMETERS, MOTOR CLOCKS, CARBURETTERS, LIGHTING SETS, INSTRUMENTS FOR AEROPLANES AND MOTOR ACCESSORIES.

Head Office: 179-185, Great Portland Street, London, W.1. *Works:* Central Works, Temple Road, Cricklewood. *Cable Address:* "Speedometer, Telew, London." *Code:* A.B.C. (5th Edition), Marconi, Bentley's, Commercial.

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AGENTS OVERSEAS:

Egypt—British Motor Co., Alexandria and Cairo, **W. Africa**—F. & A. Swanzy, Ltd., Accra, Lagos, Sekondi, etc.; Millers, Ltd., Kumasi, Accra, Lagos. Sekondi, etc. **Brazil**—P. T. Wessel & Co., London, (Distributors for Brazil); A. Miranda, Para; Machado Cavalcanti & Co., Maranhao; T. de Castro, Cearo; J. Monteath & Co., Parahyba; MacGregor & Co., Prenambuco; Luiz Barretto, Bahia; A. Moreira Dantas, Victoria; Arthur B. Freeland, Rio de Janeiro; H. E. Bott & Co., Sao Paulo; H. E. Bott & Co., Santos; Mendes & Co., Curityba; Waldeman I. de Barcellos, Porto Alegre; Gascao C. Duarte, Pelotas. **Burma, Ceylon**—Rowe & Co., Rangoon; Brown & Co., Engineers, Colombo. **Mesopotamia and Persia**—Strick, Scott & Co., Basra, Mahommerah and Baghdad. **India**—Bombay Cycle & Motor Agency, Hornby Road, Port Bombay; A. J. Collings & Co., Hughes Road, Bombay; Dykes & Co., 29, Waterloo Street, Calcutta; Thos .F. Guthrie & Co., Calcutta; T. R. Pratt & Co., Calcutta; Addison & Co., Mount Road, Madras; Oakes & Co., Madras; Marshall & Co., Madras; A. H. Wheeler & Co., Allahabad, Bombay and Calcutta. **Japan**—Takata & Co., Tokio, Osaka, and Branches; Okura & Co., Tokio, Yokohama, Dalny, etc. **Belgium**—B. D'Uston, 35, Rue Ernest Allard, Brussels. **Cyprus**—G. Jaggard & Co., Famagusta. **Denmark**—K. W. Christensen, Ny Ostergade 21, Copenhagen; Otto Drewsen, Favergade 17, Copenhagen; N. F. Johansen, Vesterbrogade 140, Copenhagen; T. T. Nielsen, Ny Colbodgade, 6 & 8, Copenhagen; N. Raaberg & Co., Farvergade 10, Copenhagen. **France**—Etablissements Kirby, 73, Rue Laugier, Paris. (Distributors for France.) **Greece**—Daffa Freres, Athens. **Holland**—Messrs. B. D'Uston, Hooge Nieustraat, The Hague. **Italy**—Societe Anon-Smith, Milan & Turin. **Malta**—Anastasi Bros., 2, Molo Marina Sliema; Guis Anastasi & Co., Valetta. **Norway**—B. O. Steen, Christiana. **Spain**—Viuda de Alberto Maurer, Carrera de San Jeronimo, 15, Madrid. **Sweden**—Amerikanska Gummi A.B.—Stockholm 3; Odinplatsen 4, Gothenburg; Sodra Forstatagatan, Malmo. **Turkey**—G. Jaggard & Co., Salonica and Constantinople. **W. Indies**—Messrs. Da Costa & Co., Barbados.

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Head Office and Works: Saltley Mill, Adderley Road, Birmingham. *Cable Address:* "Hammers, Birmingham, England." *Code:* A.B.C. (5th Edition).

Smith's (Thomas) Stamping Works, Ltd.

MAKERS OF DROP FORGINGS.

Head Office and Works: Red Lane and Aircraft Works, Ribble Road, Coventry.

Smith (Thos. & Wm.), Ltd.

(*See Advertisement Section, page* **264.**)

MAKERS OF STEEL WIRE ROPES.

Head Office: Guildhall, Newcastle-on-Tyne. *Works:* St. Lawrence Ropery, Newcastle-on-Tyne. *Cable Address:* "Smiths, Newcastle-on-Tyne." *Codes:* A.1., A.B.C. (4th and 5th Editions), Bentley's, Western Union and Western Union (5-Letter).

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Smith, Stone & Knight, Ltd.

(*See Advertisement Section, page* **214.**)

PAPER, PAPER BOARDS, CORRUGATED PAPERS AND PAPER BAGS.

Sales Office: 190, Upper Thames Street, London, E.C.4. *Works:* Birmingham, Bristol, Glasgow, Manchester and London. *Cable Address:* "Smith, Central 283, London." *Code:* A.B.C. (5th Edition).

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Somers (Walter) & Co., Ltd.

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South Durham Steel & Iron Co., Ltd.

Head Office: Stockton-on-Tees. *Works:* Stockton-on-Tees and West Hartlepool.

South Metropolitan Gas Co.

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Head Office: Manchester. *Works:* Manchester, Goole, Widnes. *Cable Address:* "Alum, Manchester." *Codes:* A.B.C. (5th Edition) and Lieber's.

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BALLOONS, AIRSHIPS, PARACHUTES AND AERONAUTICAL APPARATUS.

Head Office: 56A, Highbury Grove, London, N. *Works:* Highbury, Islington, and Clapton, London. *Cable Address:* "Aeronaut, London." *Codes:* A.B.C. and Lieber's.

OVERSEAS ADDRESSES:

Australia—The Larkin-Sopwith Aviation Co., Ltd., Melbourne. **France**—Société Commercial D'Outre Mer, 22, Rue de l'Echiquier, Paris.

Spencer Chapman & Messel, Ltd.

MAKERS OF CHEMICALS.

Head Office: 36, Mark Lane, London, E.C.3. *Works:* Silvertown and Bow. *Cable Address:* "Hydrochloric, London." *Codes:* Lieber's, A.B.C. (5th Edition), and Private.

AGENTS OVERSEAS:

France—V. Lalo, 43, Poste Bourse, Bordeaux; J. Favel, 5, Boulevard Voltaire, Paris.

Spencer (George) & Co.

MAKERS OF HOSIERY (UNDERWEAR).

Head Office: Lutterworth. *Works:* Vedonis Works, Lutterworth. *Cable Address:* "Spencer, Lutterworth." *Code:* A.B.C. (5th Edition).

Spencer (George), Moulton & Co., Ltd.

(Amalgamated with Wood-Milne, Ltd.)

(*See Advertisement Section, page* **106.**)

MAKERS OF INDIA RUBBER GOODS.

Head Office: 42, 44, 46, Wigmore Street, London, W.1. *Works:* Bradford-on-Avon, Wilts, and Leyland, Lancs. *Cable Address:* "Spenmoul, Wesdo, London." *Codes:* A.B.C. (5th Edition), and Lieber's.

OVERSEAS ADDRESSES:

New Zealand—Cotton Bros., Christchurch. **Holland**—Rubber Import Co., The Hague. **France**—F. Moulet, 4, Rue Berryer, Paris. **Sweden**—Bilaktiebolaget Mercator, Gothenberg, also at Christiania, Stockholm, etc.

Spencer (John), Limited.

Head Office and Works: Globe Tube and Engineering Works, Wednesbury, Staffs. *Cable Address:* "Tubes, Wednesbury." *Codes:* A.B.C. and Western Union.

Spencer (John) & Sons, Limited.

Head Office and Works: Newburn Steel Works, Newcastle-on-Tyne. *Cable Address:* "Newburn, Newcastle-on-Tyne." *Code:* A.B.C. (5th Edition).

Spicer (James) & Sons, Limited.

(*See Advertisement Section, page* **186.**)

WHOLESALE AND MANUFACTURING STATIONERS, WAXED PAPER MAKERS, MANUFACTURERS OF FOOD CONTAINERS AND VULCANISED FIBRE, PAPER MERCHANTS AND GENERAL EXPORTERS.

Head Office: 50, Upper Thames Street, and Abbey Wharf, London, E.C.4. *Works:* Red Cross Street, Southwark; Westminster Bridge Road, S.E.; Brimsdown Paper Works, Ponders End. *Cable Address:* "Spicer, London." *Codes:* Bentley's (5-Letter), Western Union, A.B.C., (4th and 5th Editions), Broomhall's (Imperial Comb.).

OVERSEAS ADDRESSES:

Australia—377-81, Lonsdale Street, Melbourne; 189, Clarence Street, Sydney; Courier Buildings, Queen Street, Brisbane. **New Zealand**—James Spicer & Sons (New Zealand), Ltd.; 37, Victoria Street, Wellington. **S. Africa**—James Spicer & Sons (South Africa), Ltd., Leslie Street, Durban, 7, Shortmarket Street, Cape Town, and 3, Standard Buildings, Johannesburg.

Spillers' Milling & Associated Industries, Ltd.

FLOUR MILLERS AND BISCUIT MAKERS, GRAIN MERCHANTS, GLUCOSE, POULTRY FOOD AND DOG BISCUIT MANUFACTURERS.

Export Dept.: Broad Street House, London, E.C.2. *Works:* Mills at Cardiff, London, Bristol, Newcastle, Birkenhead and Liverpool. *Cable Address:* "Spillers, London." *Codes:* A.B.C., Western Union, Bentley's.

Standard Motor Co., Ltd.

(*See Advertisement Section, page* **25.**)

MAKERS OF LIGHT TWO- AND FOUR-SEATER MOTOR CARS.

Head Office and Works: Coventry. *Cable Address:* "Flywheel, Coventry." *Codes:* A.B.C. (5th (Edition), Marconi International.

AGENTS OVERSEAS:

India—Addison & Co., Ltd., Mount Road, Madras; The Karachi Motor Co., Ltd., McLeod Road, Karachi; also at Lahore and Rawalpindi; T. R. Pratt, 301 & 302, Bow Bazar St., Calcutta; T. R. Pratt (Bombay), Ltd., Bombay. **Belgium**—Ch. Aronstein et Cie, Avenue Louise 14, Brussels. **New Zealand**—The Auckland Motor Co., Fort Street, Auckland; Ch. Chavannes, Jr., Wanganui; Cooke, Howlison & Co., Ltd., 23-25, Hanover Street, Dunedin; Kemsley & Co., Pty., Ltd., P.O. Box 297, Christchurch; The New Zealand Farmers' Co-op. Assn., Christchurch; Scott Motor Agency, Wellington; P. H. Vickery, Tay Street, Invercargill; Lowe & Keesing, Napier. **Ceylon**—Brown & Co., Ltd., Colombo. **S. Arabia**—Childs & Joseph, Aden. **British East Africa**—Childs & Joseph, P.O. Box 127, Nairobi, and P.O. Box 150, Mombasa. **German East Africa**—Childs & Joseph, Muanza. **S. E. Africa**—Childs & Joseph, Tananarive, Madagascar. **E. Africa**—Childs & Joseph, P.O. Box 108, Kampala, Uganda, and P.O. Box 35, Zanzibar. **Australia**—Canada Cycle & Motor Co., Greek Street, Brisbane; Duncan & Fraser, 46, Franklin Street, Adelaide; Kellow Falkiner Pty., Ltd., 296, Russell Street, Melbourne; Kemsley & Co., Pty., Ltd., 206, Russell Street, Melbourne, and P.O. Box 1824, Sydney; I. Phizackerley, 169-171, Elizabeth Street, Hyde Park, Sydney. **Egypt**—Eastern Automobile Supplies & Transport Co., 4, Charch Soliman Pacha, Cairo, and 5, Rue Adib, Alexandria. **Holland**—M. van Genderingen & Co., 15-29, Falckstraat, Amsterdam. **Spain**—Henderson, Lane & Co., Barcelona. **Canary Islands**—Henderson, Lane & Co., Apartado 2, Santa Cruz de Teneriffe, and Apartado 65, Las Palmas. **Greece**—MacManus Bros., Ltd., 2, Rue St. Constantin, Piraeus. **Turkey**—MacManus Bros., Ltd., 18-19, Buyuk Tunnel Han, Galata, Constantinople and Smyrna. **Denmark**—N. Raaberg & Co., 10, Farvergade, Copenhagen. **Hong Kong**—Alex. Ross & Co., 4, Rue des Voeux Road. **Mauritius**—Pearman & Co., Port Louis. **China**—Shanghai Garage Co., Shanghai. **Siam**—Siam Import Co., Bangkok. **Togo, Ashanti and Gold Coast**—F. & A. Swanzy, Ltd., 98-102, Wigmore Street, London. **Italy**—Taroni, Emilio, 35, Viale Varese, Como. **Burma**—Watson & Son, 59, Phayre Street, Rangoon. **Singapore**—Wearne Bros., Ltd., Orchard Road. **Japan**—Yanase & Co., Ltd., Zenigame-cho, Kojimachi-ku, Tokyo.

Stanton Ironworks Co., Ltd.

Head Office and Works: Nr. Nottingham. *Cable Address:* "Stanton, Alfreton." *Codes:* A.B.C. (5th Edition), Lieber's, Bentley's.

Star Engineering Co., Ltd.

(*See Advertisement Section, page* **13.**)

MAKERS OF MOTOR VEHICLES.

Head Office and Works: Frederick Street, Wolverhampton. *Cable Address:* "Motor, Wolverhampton." *Codes:* A.B.C. (5th Edition), and Lieber's.

Staveley Coal & Iron Co., Ltd.

Head Office and Works: Staveley Works, Nr. Chesterfield. *Cable Address:* "Staviron, Barrow-Hill." *Code:* Western Union.

OVERSEAS ADDRESSES:

India—J. H. Clemenger, 8, Clive Street, Calcutta; 75, Hornby Road, Bombay, and P.O. Box 244, Bombay, **S. America**—Heriot Bros., 46, Reconquista, Bueno. Aires. **New Zealand**—Burn Bros., Merchants, Auckland.

Stead & Simpson, Ltd.

MAKERS OF BOOTS AND SHOES.

Address: 12, Belgrave Gate, Leicester.

Steel Barrel Company, Ltd.

(*See Advertisement Section, page* **176.**)

STEEL BARRELS, DRUMS, TANKS, ETC., WELDED BY ELECTRICITY OR BY OXY-ACETYLENE GAS.

Head Office and Works: Phoenix Wharf, Uxbridge, Middlesex. *Cable Address:* "Barrels, Uxbridge." *Code:* A.B.C. (4th Edition).

Steel, Peech & Tozer, Ltd.

(Branch of the United Steel Cos., Ltd.)

Head Office and Works: Phoenix Special Steel Works, The Ickles, Nr. Sheffield. *Cable Address:* "Phoenix, Rotherham." *Codes:* A.B.C. (4th and 5th Editions), A1, and Western Union.

OVERSEAS ADDRESS:

Australia—"Collins House," 360, Collins Street, Melbourne.

Stephenson (Robert) & Co., Limited.

LOCOMOTIVE ENGINE BUILDERS.

Head Office and Works: Locomotive Works, Darlington. *Cable Address:* "Rocket, Darlington." *Codes:* A.B.C. (5th Edition), Engineering Telegraph, Engineering Standards, Kendall's (12 Figure Cypher).

AGENTS OVERSEAS:

Australia—Coates & Co., Pty., Ltd., 99, Queen Street, Melbourne. **S. Africa**—Hubert Davies & Co., Johannesburg. **S. America**—Hume Hermanos, San Martin 201, Buenos Aires. **Denmark**—J. L. Schouboes Son, Malmogade 6, Copenhagen.

Sterling Telephone & Electric Co., Ltd.

MAKERS OF TELEPHONES AND KINDRED APPARATUS.

Head Office: Telephone House, 210-212, Tottenham Court Road, London, W.1. *Works:* Dagenham, Essex. *Cable Address:* "Cucumis, London." *Codes:* A.B.C., Marconi, Lieber's, Western Union and Private.

Sterns Ltd.

OILS, GREASES, PETROLEUM JELLIES, WAXES AND GENERAL PETROLEUM PRODUCTS.

Head Office: Royal London House, Finsbury Square, E.C.2. *Works:* Millwall, E. *Cable Address:* "Centumvir, London." *Codes:* Western, A.B.C.

OVERSEAS ADDRESSES:

Canada—109-11, George Street, Toronto. **Belgium**—Gehenot & 9 Kums, 35, Place Liedts, Brussels. **Norway**—W. & N. Holwech, Ltd., Rosenkrantzgaten 3, Christiania. **Sweden**—Aktiebolaget, Helgot Berg Jukobagatan 24, Stockholm.

Stewarts & Lloyds, Limited.

(*See Advertisement Section, page* **53.**)

MAKERS OF IRON AND STEEL TUBES.

Head Office: 41, Oswald Street, Glasgow; Broad Street Chambers, Birmingham. *Works:* Twelve works, situate at Coatbridge, Mossend, Tollcross, Rutherglen, Nr. Glasgow, and Halesowen, Nr. Birmingham. *Cable Address:* "Lapweld, Glasgow." *Codes:* Bentley's Complete Phrase, A1 Telegraph, Engineering Telegraph and Supplement, Lieber's (5 Letter), Western Union, A.B.C. (5th Edition), Marconi.

OVERSEAS ADDRESSES:

Australia—Stewarts & Lloyds (Australia), Ltd., Wattle Street, Sydney (N.S.W.); Grant Street, Melbourne (Victoria); Earl's Court, Ann Street, Brisbane (Queensland).; 886, Hay Street, Perth (W.A.); Mines Chambers, Boulder Road, Kalgoorlie (W.A.); Bulk Warehouse, Price Street, Fremantle (W.A.); Geo. P. Harris Scarfe & Co., Ltd., Gawler Place, Adelaide (W.A.). **Transvaal**—Stewarts & Lloyds (South Africa), Ltd., Dowell Buildings, Loveday Street, Johannesburg; 327, Pretorius Street, Market Square, Pretoria. **Natal**—Stewarts & Lloyds (South Africa), Ltd., 37-39, Club Arcade, Smith Street, Durban, and 193, Commercial Road, Maritzburg. **Cape Colony**—Stewarts & Lloyds (South Africa), Ltd., Harbour Board Buildings, Adderley Street, Cape Town; Lombard Chambers, Main Street, Port Elizabeth; 2, Victoria Chambers, Terminus Street, East London; Stockdale Street, Kimberley. **Orange River Colony**—Stewarts & Lloyds (South Africa), Ltd., Upper Church Street, Bloemfontein. **Rhodesia**—Stewarts & Lloyds (South Africa), Ltd., Imperial Buildings, Main Street, Bulawayo; Angwa Street, Salisbury. **New Zealand**—(Business), J. K. Merritt, Carson Place, Little Collins Street, Melbourne (Victoria); (Business), James McLellan, Ballance Street, Wellington. **India**—Stewarts & Lloyds, Ltd., 11, Albert Building, Hornby Road, Bombay, and 3, Clive Buildings, 8, Clive Street, Calcutta. **Canada**—Drummond McCall & Co., Ltd., Mark Fisher Building, Montreal, Quebec; Evans, Coleman & Evans, Ltd., Vancouver, British Columbia., **S. America**—F. Lawson Kerr, Reconquista Street, 451, Buenos Aires; H. Cowperthwaite, Calle Morande No. 465, Santiago, Chile. **Straits Settlements**—United Engineers Ltd., Damar Road, Singapore.

Still Engine Co., Ltd.

INTERNAL COMBUSTION ENGINES.

Address: 7, Princes Street, London, S.W. 1.

Stirling Boiler Co., Ltd.

MAKERS OF WATER TUBE BOILERS.

Head Office: 54, Victoria Street, Westminster, London, S.W.1. *Works:* Renfrew & Oldbury. *Cable Address:* "Stirlinico, London." *Codes:* A.B.C., Bentley, Western Union, Lieber's and Private.

OVERSEAS ADDRESSES:

Australia—Austral Engineering Supply Co., Ltd., 490-492, Kent Street, Sydney (N.S.W.). **New Zealand**—Dansey & Co., Ltd., Box 1367, Auckland. **S. Africa**—Reunert & Lenz, P.O. Box 1092, Johannesburg

Stoddard (A. F.) & Co., Ltd.

Head Office and Works: Glenpatrick Carpet Works, Elderslie, Johnstone, Renfrewshire; also at Nethercommon, Paisley, and Forthbank Mills, Stirling. *Cable Address:* "Stoddard, Elderslie." *Code:* A.B.C. (4th and 5th Editions).

AGENTS OVERSEAS:

France—C. Lecuyer & Haussaire, 45, Rue de Trevise, Paris. **Spain**—P. Luandra, 25, Bailen, Barcelona. **Portugal**—J. G. Moreira e Silva, 1, Rua da Gloria, Lisbon. **Denmark**—S. Grube, Kellerupveg 64, Hellerup. **Sweden**—S. Cronsell, 17A, Vestmannagatan, Stockholm. **Norway**—A. O. Dannevig, 19, Gransen, Christiania. **Australia**—G. C. T. Orr & Co., 9-11, York Chambers (Corner York and Market Streets), Sydney. **S. Africa**—Justice & Co., Clarabut Chambers, Progress Lane, Strand Street, Cape Town; National Bank Buildings, Pritchard Street, Johannesburg.

Stone (J.) & Co., Ltd.

(*See Advertisement Section, page* **276.**)

NON-FERROUS METALS AND TRAIN-LIGHTING EXPERTS, GENERAL ENGINEERS AND FOUNDERS.

Head Office: Oceanic House, Cockspur Street, S.W. *Registered Office:* Deptford, London, S.E. *Works:* Deptford, London, S.E., and Riverside Works, Charlton, S.E. *Cable Address:* "Oceanilla, Westrand, London." *Codes:* A.B.C., Bentley's, Western Union, Lieber's.

AGENTS OVERSEAS:

Argentine—Evans, Thornton & Co., 465, Calle Defensa, Buenos Aires. **Australasia**—Collin & Co., Proprietory, Ltd., 651-3, Bourke Street, Melbourne; 48-50, Clarence Street, Sydney; Matthew C. Coates, Austral Chambers, 99, Qleen Street, Melbourne. **Brazil**—Norton, Megew & Co., Rio de Janeiro; M. Almeida & Co., San Paulo. **Canada**—Stone-Franklin Co., Transportation Building, Montreal. **U.S.A.**—Stone-Franklin Co., 18, East Forty-first Street, New York. **India**—J. Stone & Co., Ltd., 1, British Indian Street, Calcutta. **China**—Jardine, Matheson & Co., Ltd., Shanghai. **S. Africa**—Hubert Davies & Co., Brown's Buildings, Loveday Street, Johannesburg.

AGENCIES IN MOST EUROPEAN COUNTRIES AND OTHER PARTS OF THE WORLD.

Storey Bros. & Co., Ltd.

MAKERS OF TABLE BAIZE AND LEATHER CLOTH.

Head Office and Works: Lancaster.

Stothert & Pitt, Limited.

CRANES, HARBOUR PLANT, RAILWAY PLANT, ETC.

Head Office: Lower Bristol Road, Bath. *Works:* Newark and Victoria Works, Bath. *Cable Address:* "Stothert, Bath." *Codes:* A.B.C. (5th Edition), New Business, Bentley's, Lieber's, Scott's, Marconi's, Western Union.

OVERSEAS ADDRESSES:

Australia—Coates & Co., Pty., Ltd., 99, Queen Street, Melbourne. **Canada**—Peacock Bros., 179, Delorimier Avenue, Montreal. **New Zealand**—Richardson McCabe, 11, Grey Street, Wellington, **S. Africa**—R. M. Dowson, Ltd., Simmonds Street, Johannesburg. **France**—La Soc. en formation Imop (Agences pour l'Industrie, la Marine et l'Outillage des Ports), 50, Rue Taitbout, Paris. **Belgium**—La Soc. en formation Imop, 14, Boulevard Maurice Lemmonier, Bruxelles. **Italy**—La Societa Commerciale Eich, Maumary, Viale Venezia, No. 20, Milan. **Scandinavia**—Mons. Emil Hjort, Larsbjornstraede 9, Copenhagen. **Portugal**—E. Pinto Basto & Co., Ltd., 64, Caes do Sodre, Lisbon. **India**—(For Cranes), Heatly & Gresham, Calcutta, Bombay and Madras. (For Concrete Mixers), Richardson & Cruddas, Bombay; Burn & Co., Calcutta.

Stott (James), Limited.

(*See Advertisement Section, page* **230.**)

COTTON CANVASSES AND DUCKS FOR BELTING (BALATA, RUBBER SEWN, ETC.), TYRES, TENTS, SAILS, AWNINGS, FILTER PRESSES, PACKINGS, HOSE, AGRICULTURAL MACHINERY, MOTOR HOODS, SHOES, TARPAULINS, WAGGON COVERS AND YARNS FOR THE ABOVE.

Head Office: Coldhurst Hall Mills, Oldham. *Works:* Coldhurst Hall Mills and Werneth Mills, Oldham; also at 10, Marsden Street, Manchester. *Cable Address:* "Doubler, Oldham." *Codes:* A.B.C. (5th Edition), Western Union, Marconi.

Straker-Squire Ltd.

MAKERS OF MOTOR CARS, LORRIES, ETC.

Head Office and Works: Angel Road, Edmonton, London, N.18. *Cable Address:* "Rhomboidal, Tottlane, London." *Codes:* A.B.C. (5th Edition), Lieber's and Western Union.

Strakers & Love.

COLLIERY OWNERS, PRODUCERS OF COAL, COKE, TAR, ETC.

Head Office: Brancepeth Colliery Offices, Collingwood Buildings, Newcastle-on-Tyne. *Works:* Brancepeth Colliery, Willington, Co. Durham.

Sturtevant Engineering Co., Ltd.

FANS, BLOWERS, EXHAUSTERS, VACUUM CLEANING INSTALLATIONS, CRUSHING AND GRINDING MACHINERY, ETC.

Address: 147, Queen Victoria Street, London, E.C.4.

Suckling, Ltd.

SILVER PLATE AND METAL COMPONENTS FROM SHEET AND BAR IN ALL METALS.

Head Office and Works: Kingsway House. Albion Street, Birmingham. *London Showrooms:* Morley House, 26, Holborn Viaduct. *Cable Address:* "Kingsway, Birmingham. "*Code:* A.B.C. (5th Edition).

AGENTS OVERSEAS:

Canada—W. T. Evans, 518, Lindsay Buildings, St. Catherine Street, W., Montreal. **S. Africa**—E. A. Hitchman, 40-41, Stuttafords Chambers, Adderley Street, Cape Town. **Australia**—C. F. Lloyd, Lane Centre, 325, Flinders Lane, Melbourne.

Sulphate of Ammonia Association.

Address: 30, Grosvenor Gardens, Westminster, London, S.W.1.

Sulphide Corporation, Ltd.

LEAD, SILVER, SPELTER, SULPHURIC ACID, SUPERPHOSPHATES, ETC.

Address: Finsbury House, Blomfield Street, London, E.C.2.

Summers (John) & Sons, Limited.

Head Office: Hawarden Bridge Works, Shotton, Chester. *Works:* Hawarden Bridge and Stalybridge. *Cable Address:* "Summers, Chester." *Codes:* A.B.C. (4th and 5th Editions), A1, Lieber's, Lieber's (5-Letter), Western Union, Western Union (5-Letter), Bentley's, Marconi International.

Summerson (Thos.) & Sons, Limited.

(*See Advertisement Section, page* **90.**)

RAILWAY SWITCHES AND CROSSINGS, IRON AND STEEL CASTINGS.

Head Office and Works: Darlington. *Cable Address:* "Summerson, Darlington, England. *Code:* A.B.C.

Sunbeam Motor Car Co., Ltd.

Head Office and Works: Moorfield Works, Wolverhampton, England. *Cable Address:* "Moorfield, Wolverhampton, England." *Codes:* A.B.C. (5th Edition) and Private.

Sun Cycle & Fittings Co., Ltd. (The).

CYCLES & MOTOR CYCLES & CYCLE FITTINGS.

Head Office and Works: Aston Brook Street, Birmingham. *Cable Address:* "Carbon." *Code:* A.B.C. (New Edition).

AGENTS OVERSEAS:

Argentine—Dartinguelongue & Toulouse, Calle Esmeralda, Buenos Aires. **Australia**—Cashmore & Russell, 283, Clarence Street, Sydney. **Belgium**—M. De Brevne, 41, Avenue Blonden, Liege. **Holland**—Allsopp & Co., N.Z. Voorburgwal 108, Amsterdam. **Portugal**—F. Pinto, Coelho, Rue da Conceicao da Gloria 14, Lisbon. **Denmark**—S. Thorup, Vesterbros Tory 47, Copenhagen. **Spain**—A. Sanroma, Balmes 62, Barcelona. **Switzerland**—E. Bettens, Avenue du Mail 20, Genève.

Sutcliffe & Co.

(*See Advertisement Section, page* **88.**)

MAKERS OF WOOLLEN AND WORSTED PIECE GOODS.

Head Office: Holmfield Mills, Holmfield, Halifax. *Works:* Holmfield Mills and Shay Lane Mills, Holmfield, Halifax. *Cable Address:* "Gage, Illingworth." *Codes:* A.B.C. (5th Edition), Bentley's, Western Union, Marconi International.

Swift of Coventry, Ltd.

MAKERS OF CYCLES AND MOTOR CARS.

Head Office and Works: Cheylesmore, Coventry. *Cable Address:* "Swift, Coventry." *Codes:* A.B.C. and A1.

AGENTS OVERSEAS:

Dutch Guiana—J. A. da Silva, P.O. Box 273, Paramaribo. **British Guiana**—A. D. Hack, 20, Hinck Street, Georgetown (Demerara). **British West Indies**—H. Strong, Ltd., 21, Frederick Street, Port-of-Spain (Trinidad); Newsam & Co., P.O. Box 45, Bridgetown (Barbados). **Mexico**—Mohler & De Gress, Ave. Morelos 16, Mexico City.

T

Tankard (James), Ltd.

MAKERS OF WORSTED YARNS (BOTANY).

Head Office and Works: Upper Croft Mills, Bradford. *Cable Address:* "Tankard, Bradford." *Code:* A.B.C. (5th Edition).

Tann (John), Ltd.

(*See Advertisement Section, page* **199.**)

FIRE AND BURGLAR RESISTING SAFES, STRONGROOMS, STRONGROOM AND PARTY WALL DOORS, CASH AND DEED BOXES, LOCKS, ETC.

Head Office: 117, Newgate Street, London, E.C.1. *Works:* Reliance Works, St. Stephens Road, Old Ford, E.3. *Cable Address:* "Safejotan, London." *Codes:* A.B.C. (5th Edition), Lieber's, Private.

AGENTS OVERSEAS:

Australia—A. M. Hertzberg & Co., Brisbane (Queensland); Edwards Dunlop & Co., Sydney (N.S.W.). **New Zealand**—Sargood, Son, & Ewen, Ltd., Christchurch, Auckland, Wellington, Dunedin. **Egypt**—Mufarrij & Nader, Alexandria and Cairo. **Greece**—Lionda & Co., Athens, Salonica, etc. **Roumania**—Federal Village Co-operative Societies, Bucarest. **China**—Arnhold Bros., & Co., Shanghai, Hong Kong, etc. **Mesopotamia and Persia**—Selim Homsy & Co., Bussorah, Baghdad, etc. **Siam, F.M.S., and Malay Peninsular**—S. Smith & Son (Siam), Ltd., Bangkok, etc. **Dutch East Indies**—S. Smith & Son (M.A.), Ltd., Java. **Portugal**—Felix da Costa & Freitas, Ltd., Lisbon. **Chili**—Buchanan Jones & Co., Iquique, Valparaiso, Antofagasta. **West Indies**—F. N. Martinez, Barbadoes. **E. Africa, Uganda and Zanzibar**—Boustead & Clarke, Mombasa, Nairobi, Kampala, Muanza, Tanga, Zanzibar, etc. **British West Africa**—Dyer & Wintle, Ltd., Lagos, Accra, Warri, Monrovia. **Norway**—Industrielt Importcompagnie, Kristiania. **Siberia**—Denny Mott & Dickson, Vladivostock. **Straits Settlements**—Planters Stores & Agency, Ltd., and Adamson Gilfillan & Co., Ltd. **San Salvador**—G. A. Sauerbrey, S. America. **Turkey**—Maurice Marcus, Tchinili Rihtim Han, Nos. 1, 17 & 18, Constantinople. **Natal**—Henwood, Son, & Soutter, Durban. **Transvaal**—A. & S. Inglestone, 6, Corporation Buildings, Commissioner Street, Johannesburg.

Tate (Henry) & Sons, Ltd.

SUGAR REFINERS.

Head Office: 21, Mincing Lane, London, E.C.3. *Works:* Thames Sugar Refinery, Silvertown, London; Love Lane Refinery, Liverpool. *Cable Addresses:* "Tateson, Fen, London," and "Tateson, Liverpool."

Tayler (D. F.) & Co., Ltd.

MAKERS OF PINS, METAL AND WIRE. PRINTERS.

London Office: 80, Wood Street, E.C.2. *Head Office and Works:* New Hall Works, Birmingham. *Cable Address:* "Epingles, Birmingham." *Code:* A.B.C. (5th Edition).

Taylor Bros. & Co., Ltd.

(*See Advertisement Section, page* **98.**)

Head Office: Clarence Iron & Steel Works, Leeds. *Works:* Clarence Iron & Steel Works, Leeds, and Trafford Park Steel Works, Manchester. *Cable Address:* "Taylors, Leeds." *Codes:* A.B.C. (5th Edition), Western Union, Bentley's, Lieber's.

AGENTS OVERSEAS:

S. Africa—Edgar Allen & Co., Ltd., New Club Buildings, Johannesburg. **Australia**—Knox Schlapp & Co., 360, Collins Street, Melbourne. **Argentine**—Ramsay Bellamy & Co., Reconquista 46, Buenos Aires. **Spain**—Aragunde & Sons, Apartado 219, Bilbao.

Taylor (C. F.) & Co., Ltd.

(*See Advertisement Section, page* **152.**)

ALL KINDS OF TEXTILE YARNS FOR MANUFACTURING AND KNITTING PURPOSES.

Head Office and Works: Lower Holme Mills, Shipley, Yorkshire. *Cable Address:* "Taylors, Shipley." *Code:* A.B.C. (5th Edition).

Taylor (Seth).

FLOUR AND MILLER'S OFFALS.

Head Office: 19, Surrey Street, Strand, London, W.C.2. *Works:* St. Saviour's Flour Mills, Mill Street, Bermondsey, London, S.E. *Cable Address:* "Seth Taylor, London."

Tebbutt (G. M.) & Son, Ltd.

MAKERS OF LADIES' AND GENTS' BOOTS AND SHOES.

Address: Clare Street, Northampton.

Tees Side Bridge & Engineering Works, Ltd.

Head Office and Works: Middlesbrough. *Cable Address:* "Teesside, Middlesbrough." *Code:* Marconi International.

Telegraph Construction & Maintenance Co., Ltd.

MAKERS OF TELEGRAPH AND TELEPHONE CABLES, ETC.

Head Office: 38, Old Broad Street, London, E.C.2. *Works:* Enderby's Wharf, Greenwich, S.E.10, and 18, Wharf Road, City Road, N.1. *Cable Address:* "Telcon-Ave., London." *Codes:* A.B.C. and Bentley's.

Telephone Manufacturing Co., Ltd.

(*See Advertisement Section, page* **257.**)

TELEPHONE APPARATUS AND WORKS SIGNALLING SYSTEMS.

Head Office and Works: Hollingworth Works, West Dulwich, London, S.E.21. *Cable Address:* "Bubastis-Dulcrox, London." *Codes:* A.B.C. and Western Union.

Terry (Herbert) & Sons, Ltd.

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Thermal Syndicate, Ltd.

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Address: Wallsend-on-Tyne.

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(*See Advertisement Section, page* **146.**)

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Thomas (Richard) & Co., Ltd.

(*See Advertisement Section, page* **51.**)

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Thompson (Joseph L.) & Sons, Ltd.

(*See Advertisement Section, page* **37.**)

SHIP BUILDERS AND SHIP REPAIRERS OF ALL DESCRIPTIONS.

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(*See Advertisement Section, page* **215.**)

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Tootal Broadhurst Lee Co., Ltd.

(*See Advertisement Section, page* **148.**)

MAKERS OF COTTON YARNS AND CLOTH.

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(*See Advertisement Section, page* **258.**)

Head Office: Trafford Park, Manchester. *Cable Address:* "Developing, Manchester." *Code:* A.B.C. (5th Edition).

Transport (1910) Ltd.

(*See Advertisement Section, page* **126.**)

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Tredegar Iron & Coal Co., Ltd.

(*See Advertisement Section, page* **226.**)

COLLIERY PROPRIETORS AND COAL EXPORTERS.

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(*See Advertisement Section, page* **155.**)

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U

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United Brassfounders & Engineers, Ltd.

(*See Advertisement Section, page* **269.**)

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United Glass Bottle Manufacturers, Ltd.

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(*See Advertisement Section, page* **45.**)

Head Office: 46, West George Street, Glasgow. *Manchester Office:* 127, Portland Street. *Works:* Alexandria, Dumbartonshire, Scotland. *Cable Address:* "Lomond, Glasgow." *Codes:* A.B.C. (5th Edition), Bentley's.

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Universal Grinding Wheel Co., Ltd. (The).

(*See Advertisement Section, page* **284.**)

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(*See Advertisement Section, page* **31**.)

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(*See Advertisement Section, page* **296.**)

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(*See Advertisement Section, page* **183.**)

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(*See Advertisement Section, page* **268.**)

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(*See Advertisement Section, page* **248.**)

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(*See Advertisement Section, page* **259.**)

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(*See Advertisement Section, page* **204.**)

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AGENTS OVERSEAS:

France—John Laurier, 68, Rue Francois Miron, Paris. **Italy**—Roberto Contini, 1, Piazza Castello, Milan. **Spain**—Stevenson Bonet & Cia., Avenida Penalver 21, Madrid. **Canada**—Dillons Limited, Montreal. **Belgium**—Camille Honhon, 39-41, Avenue des Nerviens, Brussels. **Holland**—P. J. Berkhout & Zoon, 23A, Burgemeester Hoffmanstraat, Rotterdam.

Whitbread & Co., Ltd.

BREWERS.

Head Office: Chiswell Street, London, E.C.1.

White, Allom & Co.

INTERIOR DECORATIVE CONTRACTORS AND FURNISHERS.

Head Office: 15, George Street, Hanover Square, W.1. *Works:* 6A, B, C, and 8, Ridgmount Street, Store Street, London, W.C. *Cable Address:* "Emblelishment, London." *Codes:* Lieber's, A.B.C., Western Union, Telegraphic (5-Letter Edition).

OVERSEAS ADDRESS:

U.S.A.—19, East 52nd Street, New York.

White & Poppe, Limited.

MAKERS OF PETROL ENGINES.

Head Office: Holbrooks Lane, Coventry. *Works:* Holbrooks Lane and Lockhurst Lane, Coventry. *Cable Address:* "White & Poppe, Coventry, England." *Codes:* Marconi, Lieber's and Western Union.

White (E. T.) & Co.

(*See Advertisement Section, page* **274.**)

ENGINEERS.

Head Office: Albemarle Mansions, Piccadilly, London, W.1. *Cable Address:* "Autometal, London." *Code:* Bentley's.

White (J. Samuel) & Co., Ltd.

SHIPBUILDERS OF OCEAN AND RIVER CRAFT OF ALL DESCRIPTIONS, MARINE ENGINEERS.

Head Office and Works: East Cowes, Isle of Wight, England. *London Office:* 28, Victoria Street, Westminster, S.W.1. *Cable Address:* "White, East Cowes." *Codes:* A.B.C. (5th Edition), Engineering (2nd Edition), Lieber's, Western Union.

AGENT OVERSEAS:

Australia—Frank Saunders, Ltd., 232, Clarence Street, Sydney (N.S.W.).

White, Tomkins & Courage, Ltd.

OATMEAL, OIL EXTRACTION AND FOOD PRODUCTS AND CATTLE FOODS.

Head Office: 48, Mark Lane, London, E.C.3, England. *Works:* London, Liverpool, Boston, Belfast, Tandragee and Templemoyle. *Cable Address:* "Whitetomkins, London." *Code:* A.B.C. (5th Edition).

Whitehaven Colliery Co., Ltd. (The).

COAL, COKE AND BY-PRODUCTS.

Head Office: 51, Duke Street, Whitehaven. *Telegraphic Address:* "Coal, Whitehaven."

Whitehaven Hematite Iron & Steel Co., Ltd.

(*See Advertisement Section, page* **63.**)

Head Office and Works: Cleator Moor, R.S.O., Cumberland.

Whitehead Aircraft (1917), Ltd.

MAKERS OF AIRCRAFT, ETC.

Head Office and Works: 53-71, Grena Road, Richmond, Surrey.

Whitehead (David) & Sons, Ltd.

(*See Advertisement Section, page* **162.**)

MAKERS OF COTTON GOODS.

Head Office and Works: Lower Mills, Rawstenstall. *Cable Address:* "Whitehead, Rawtenstall."

Whitehead Iron & Steel Co., Ltd.

Head Office and Works: Deighton Iron and Stee Works, Tredegar, Mon.

Whitehead Torpedo Works (Weymouth), Ltd.

MAKERS OF TORPEDOES.

Head Office and Works: Weke Regis, Weymouth.

Wigan Rolling Mills Co., Ltd.

MAKERS OF BAR IRON, HOOP IRON AND STEEL HOOPS.

Address: Pagefield, Wigan, Lancs.

Wigglesworth (Frank) & Co., Ltd.

(*See Advertisement Section, page* **266.**)

MAKERS OF POWER TRANSMISSION MACHINERY.

Head Office and Works: Clutch Works, Shipley, Yorks. *London Office:* 7, King's House, King Street, E.C.2. *Cable Address:* "Clutch, Shipley." *Codes:* A.B.C. (5th Edition), Marconi.

AGENTS OVERSEAS:

France—Paul Testard, 46, Rue de Londres, Paris. **Turkey, Greece, Egypt, and Mesopotamia**—The Levant Co. **China**—Rose, Downs & Thompson (Eastern), Ltd., 20, Foochow Road, Shanghai.

Wild (M. B.) & Co., Ltd.

(*See Advertisement Section, page* **61.**)

MECHANICAL AND ELECTRICAL ENGINEERS, COLLIERY, GAS WORKS, AND ROLLING MILL PLANTS.

Head Office and Works: Nechells, Birmingham, England. *Codes:* A.B.C. (5th Edition), Lieber's, Bentley's.

Wilkins Wire Rope Co., Ltd.

(*See Advertisement Section, page* **262.**)

MAKERS OF WIRE ROPES.

Head Office and Works: Eastwood, Notts, England. *Cable Address:* "Cordelero, Eastwood, Notts." *Codes:* A.B.C. (5th Edition), The Engineering Telegraph, Western Union, Bentley's Complete Phrase.

AGENTS OVERSEAS:

S. Africa—Blane & Co., 23-28, Central House, Simmonds Street, Johannesburg. **Australia**—The Empire Engineering Supply Co., Ltd., 259, Clarence Street, Sydney (N.S.W.). **Holland and Dutch East Indies**—N. V. Geveke & Co., De Ruyterkade 113, Amsterdam, and Simpang, Soerabaia and Java. **Sweden**—B. Buchholz, Gothenburg. **India**—John Fowler & Co. (Leeds), Ltd., York Building, Hornby Road, Bombay. **China**—Rose, Downs & Thompson (Far East), Ltd., Shanghai. **Spain**—Moreno y Cia. (S. en C.) Carrera de San Jerónimo 44, Madrid. **Greece**—Société Generale Industrielle, 11, Aristides Street, Athens.

Wilkinson (John).

(*See Advertisement Section, page* **160.**)

MAKERS OF COLOURED WOVEN AND DYED COTTON GOODS.

Head Office: 61, Portland Street, Manchester. *Works:* Nelson, Skipton, Ramsbottom, Openshaw. *Cable Address:* "Laurel, Manchester." *Codes:* A.B.C. (5th Edition), Western Union

Willans & Robinson, Ltd.

Address: Victoria Works, Rugby.

(*See* English Electric Co., Ltd.)

Willet & Robinson.

MAKERS OF SHEET METAL WORK.

Address: Earl Street, Maidstone.

Willford & Co., Ltd.

MAKERS OF RAILWAY SPRINGS.

Head Office: Park House Works, Sheffield. *Works:* Sheffield and Glasgow. *Cable Address:* "Audax, Sheffield."

Williams Deacon's Bank, Ltd.

(*See Advertisement Section, page* **201.**)

BANKERS.

Registered Head Office: 20, Birchin Lane, London E.C.3. *Governing Office:* Mosley Street, Manchester. *Telegraphic Addresses:* "Williams Deacon, Stock, London"; "Twenty, Manchester." *Codes:* Lieber's, Bentley's, Marconi International.

AGENTS OVERSEAS:

The usual Banking Agencies—for List see advertisement.

Williams (Edward).

ENGINEERS.

Head Office and Works: Benson Works, Foundry Lane, Smethwick, Birmingham. *Cable Address:* "Sprockets, Birmingham." *Codes:* A.B.C. (5th Edition), and Bentley's.

AGENT OVERSEAS:

Australia—James Thornell, Box 882, G.P.O., Sydney (N.S.W.).

Williams (George) & Co., Ltd.

HIGH GRADE CLOTHING FOR MEN, WOMEN, AND BOYS.

Head Office and Works: 33-37, Alfred Place, Tottenham Court Road, London, W.C.1. *Cable Address:* "Costumes, London." *Code:* A.B.C. (5th Edition).

AGENTS OVERSEAS:

Australia—Dominions Trading Co. Proprietary, Ltd., Lane Centre, 325, Flinders Lane, Melbourne. **U.S.A.**—A. F. Gustafson, 220, Fifth Avenue, New York.

Wilmot Manufacturing Co.

SILVER WARE, ELECTRO PLATE AND FANCY METAL NOVELTIES.

Works: Eastern and Camden Works, Camden Street, Birmingham. *Show Rooms:* 40, High Holborn, London, W.C. 1. *Cable Address:* "Jaypee, Birmingham." *Code:* A.B.C. (5th Edition)

Wilson Bros. Bobbin Co., Ltd.

(*See Advertisement Section, page* **301.**)

BOBBINS AND SHUTTLES, AND WOOD CHEMICAL PRODUCTS.

Head Office: Cornholme Works, Garston, Liverpool. *Works:* Cornholme Works, Garston, and Cornholme Mills, Todmorden. *Cable Address:* "Nugget, Liverpool." *Codes:* A.I., A.B.C. (5th Edition) and Marconi.

Wilson Bros. Bobbin Co., Ltd.—*continued.*

AGENTS OVERSEAS:

Belgium—T. E. Wilson-Clyma, 27, Rue Leon Gambetta, Lille, and 23, Rue Paul Lauters, Brussels. **India**—N. Wadia & Sons, Home Street, Fort, Bombay. **Japan**—Mitsui & Co., Ltd., Tokio, Osaka, etc. **China**—Jardine Matheson & Co., Ltd., Hong Kong. **Poland**—De Jersey & Co., Ltd., Lodz. **Italy**—Ing. Vittorio Calderara, Via Bigli No. 9, Milan. **U.S.A.**—Leigh & Butler, Boston, Mass. **S. America**—Glossop & Co., Rio de Janeiro. **Mexico**—Juan Bannister's Succrs. **Baltic Provinces** — K. Szymanowski, 4 Wossnessenski Prospect, Petrograd. **Australia**—James Dyer, 325, Flinders Lane, Melbourne. **Holland**—Tattersall & Holdsworth's Globe Works and Stores, Enschede.

Wilson (C. & A.).

MAKERS OF WORSTED YARNS.

Head Office and Works: Moorside Mills, Eccleshill, Bradford, Yorks.

Wilson (Joshua) & Sons, Ltd.

MAKERS OF FINE WORSTED COATINGS.

Head Office and Works: Bean Ing Mills, Wellington Street, Leeds. *London Office:* 5, Golden Square, W.1. *Cable Address:* "Joshua, Leeds." *Code:* A.B.C. (5th Edition).

OVERSEAS ADDRESSES:

Canada—248, Notre Dame Street West, Montreal. **Australia**—Commerce House, 328, Flinders Street, Melbourne.

Wilson's Brewery, Ltd.

BREWERS.

Head Office and Works: Newton Heath Brewery, Manchester.

Winox, Ltd.

MAKERS OF WINOX TONIC WINE.

Address: Winox Buildings, Kew Foot Road, Richmond.

Witherby & Co.

(*See Advertisement Section, page* **216.**)

PRINTING, STATIONERY, ACCOUNT BOOKS, ETC.

Addresses: 326, High Holborn, London, W.C.1., and 15, Nicholas Lane, London, E.C.4.

Wolseley Motors, Ltd.

(Proprietors: Vickers Ltd.)

Head Office: Adderley Park, Birmingham. *Works:* Adderley Park, and Ward End, Birmingham. *Cable Address:* "Exactitude, Birmingham." *Codes:* Western Union, A.B.C. (5th Edition), Lieber's (5-Letter).

OVERSEAS ADDRESSES:

India—Sandhurst Bridge Road, Chauputty, Bombay. **Canada**—Avenue Road, Toronto.

Wolseley Sheep Shearing Machine Co., Ltd.

SHEEP SHEARING MACHINERY, STATIONARY AND PORTABLE PETROL ENGINES, CREAM SEPARATORS, SPEEDILY JACKS AND GENERAL ENGINEERING.

Head Office and Works: Sydney Works, Alma Street, Aston, Birmingham. *Cable Address:* "Shearing, Birmingham." *Codes:* A.B.C. (4th and 5th Editions), Lieber's, Bentley's, Marconi (Volume I).

OVERSEAS AGENTS IN Sydney (Australia), Wellington (New Zealand).

Wolsey, Ltd.

SPINNERS, HOSIERY MANUFACTURERS, DYERS AND BLEACHERS.

Head Office: King Street, Leicester. *Factory:* Bruin Street, Leicester. *Mills:* Abbey Park, Abbey Meadow, Rutland Street, Fleckney, Shepshed, Coalville, Ratby, Oadby, Leicester, and Hawick, Dumfries, Annan, Scotland. *Cable Addresses:* "Tyler, Leicester"; "Wolsey, Leicester." *Code:* A.B.C. (4th and 5th Editions).

AGENTS OVERSEAS:

Argentine—A. Meyer, Buenos Aires. **Australia**—MacPhail Sons & Johnson, Ltd., Sydney (N.S.W.). **Belgium**—H. Valentine & Co., Brussels. **Canada**—D. F. Baird, 46, Richmond Buildings, 33, Richmond Street West; J. W. Greig, 64, Wellington Street, Toronto. **Denmark**—Rygaard & Jensen, Copenhagen. **Egypt**—Kemhadygen & Co., Cairo. **Holland**—G. J Wytenburg, The Hague. **Norway**—Hannibel Fegth, Christiania. **New Zealand**—Dawson & Maudsley, Wellington (N.Z.). **Roumania**—Wexler & Zwolfer, Bucarest. **Spain**—Adolfo Graf, Madrid. **S. Africa**—J. E. Simon, 93, Fletchers Chambers, Cape Town. **Sweden**—C. Gulstrand, Stockholm. **Switzerland**—J. E. Hugentobler, Zurich. **Uruguay**—Moor Bros. & Co., Montevideo

Woodall, Duckham & Jones (1920), Ltd.

MAKERS OF CARBONISING PLANT.

Head Office: 52, Grosvenor Gardens, London, S.W.1. *Cable Address:* "Retortical, London." *Code:* A.B.C. (5th Edition).

AGENTS OVERSEAS:

Australia—Gibbons (Australasia), Ltd., 340, Spencer Street, Melbourne. **America**—Isbell-Porter Co., Newark, New Jersey. **France**—Cie. Generale de Construction de Fours, 32 et 34, Rue de la Grange aux Belles, Paris.

Wood (Edward) & Co., Ltd.

BRIDGEWORK, ROOFING, CONSTRUCTIONAL STEELWORK, FORGINGS, ETC.

Head Office: 81, Cannon Street, London, E.C.4. *Works:* Ocean Ironworks, Manchester. *Cable Address:* "Ventillons, London." *Codes:* A.B.C. (5th Edition), Bentley's, Marconi, Lieber's.

AGENT OVERSEAS:

S. America—British Structural Steel Co., Ltd., Paseo Colon 492, Buenos Aires.

Wood (Hugh) & Co., Ltd.

MAKERS OF MINING AND LABOUR SAVING MACHINERY.

Head Office: Newcastle-on-Tyne. *Export Dept.:* 65, Fenchurch Street, London, E.C.3. *Works:* Hive Works, Trafford Park, Manchester. *Cable Address:* "Huwod, London." *Code:* Western Union, Bentley's and Private.

Wood-Milne, Ltd.

(Amalgamated with George Spencer, Moulton & Co., Ltd.)

MAKERS OF RUBBER TYRES, RUBBER HEELS, ETC.

Head Office: 42, 44, 46, Wigmore Street, London, W.1. *Works:* Leyland, Lancs., and Bradford-on-Avon. Wilts. *Cable Address:* "Wudmiln, Wesdo, London." *Codes:* A.B.C. (5th Edition), and Lieber's.

OVERSEAS ADDRESSES AND AGENTS:

India—Wood-Milne, Ltd., Ballard Pier Road, Bombay; 19-21, Bow Bazaar Street, Calcutta. **Italy**—Wood-Milne, Ltd., Casella Postale 1059, Milano. **France**—H. E. Skepper, 103, Avenue Parmentier, Paris. **Spain**—Stevenson, Bonet & Co., Avenida Conde Penalver, 2123, Madrid. Also at Brussels, Cairo, Athens, Johannesburg, Stockholm, Christiania, etc.

Woolcombers, Limited.

Head Office: 11, Forster Square, Bradford. *Branches:* Allerton, Shipley, Thornbury, Bradford, Bingley, and Dudley Hill. *Cable Address:* "Woolcomber, Bradford."

Workington Iron & Steel Co., Ltd.

Head Office: Moss Bay, Workington.

Wren (William) & Co., Ltd.

BOOT AND SHOE POLISHES, LEATHER DRESSINGS, ETC. FURNITURE POLISH, METAL POLISH, ETC.

Address: Albert Street, Northampton.

Wright (H.) & Son.

(*See Advertisement Section, page* **173.**)

MAKERS OF BOOTS AND SHOES.

Head Office and Works: Regent Street, Kettering. *Cable Address:* "Regency, Kettering." *Code:* A.B.C. (5th Edition), Bentley's.

Wright (John) & Eagle Range, Ltd.

GAS COOKING AND HEATING STOVES, AND GAS APPARATUS FOR INDUSTRIAL PURPOSES, COAL GRATES AND RANGES.

Head Office and Works: Essex Works, Aston, Birmingham. *Cable Address:* "Eureka, Birmingham." *Codes:* A.B.C. (5th Edition), Bentley's, and Marconi's International.

AGENTS OVERSEAS:

France—D. Duterme, 67, Rue Crozatier, Paris. **Australia**—B. G. Plummer & Co., 82, Pitt Street, Sydney; Coates & Co. Pty., Ltd., 99, Queen Street, Melbourne; Webster & Co., Mary Street, Brisbane. **New Zealand**—A. & T. Burt, Ltd., at Dunedin, Wellington, Christchurch, Invercargill and Auckland. **Holland**—R. S. Stokvis & Zonen, Rotterdam. **Belgium**—Compagnie Continentale Belge S.A., 42, Longue rue Neuve, Antwerp. **Italy**—Henry Coe & Clerici, Via Montebello, 36, Milan. **Egypt**—Messeca Suares & Co., 5, Cairo Station Street, Alexandria. **Japan**—L. J. Healing & Co., Tokio. **Denmark**—Grew, Blair & Co., Aktieselskab, Copenhagen. **Chile**—Morrison & Co., Valparaiso.

Wright (John & Edwin), Ltd.

WIRE AND HEMP ROPES, CORDAGE TWINES, ETC.

Head Office and Works: Universe Rope Works, Birmingham. *Cable Address:* "Universe, Birmingham." *Codes:* A.B.C. (4th and 5th Editions), Hamilton's (5-Letter), Hamilton's International Code Condenser, Marconi International, Private.

Wright (Orson) & Son.

MAKERS OF BOOTS AND SHOES.

Head Office and Works: Canal Street, South Wigston, Leicester. *Cable Address:* "Wright, South Wigston." *Code:* A.B.C.

Wright, Bindley & Gell, Ltd.

UMBRELLA RIBS, TUBES, FURNITURE AND FRAMES, SAWS, FILES, MACHINE KNIVES, IRON AND STEEL WIRE.

Head Office: Premier Works, Percy Road, Greet, Birmingham. *Works:* Percy Road, Greet; Allison Street and Chester Street, Birmingham; Dunkirk Mills, Inchbrook, Glos., also Don Saw Works, Penistone Road, Sheffield. *Cable Address:* "Bindley, Birmingham." *Codes:* A.B.C (5th Edition), A1, and Marconi International.

AGENTS OVERSEAS:

Spain—A. Piazzi, Rambla Cataluna 14, Barcelona. **Belgium**—Nuyens & Kammans, 59, Rue Locquenghien, Brussels. **France**—J. Giraud, 21, Rue d'Aboukir, Paris. **Australia**—Jacksons, Ltd. 62, Goulburn Street, Sydney.

Wrigley (E. G.) & Co., Ltd.

AUTOMOBILE TRANSMISSION COMPONENTS AND SMALL TOOLS.

Head Office and Works: Foundry Lane Works, Soho, Birmingham. *Cable Address:* "Cutters, Birmingham." *Codes:* Marconi and Western Union.

AGENTS OVERSEAS:

Spain—Alfred Herbert, Ltd., Plaza Real 4, Barcelona. **India**—Alfred Herbert, Ltd., 13, Br. India Street, Calcutta. **Japan**—Alfred Herbert, Ltd., 14, Yamashita-Cho, Yokohama; 13, Yamashita-Cho, Tokio; 98, Sonezaki Kami, Osaka. **U.S.A.**—Alfred Herbert, Ltd., 54, Dey Street, New York. **France**—Soc. Anon. Alfred Herbert, 47, Boulevard de Magenta, Paris. **Belgium**—Alfred Herbert, Ltd., 35, Rue de Laeken, Brussels. **Italy**—Soc. Anon. Italiana Alfred Herbert, 42, Via Cajazzo, Milan.

Y

Yarrow & Co., Ltd.

ENGINEERS, SHIPBUILDERS AND BOILER MAKERS.

Head Office and Works: Scotstoun, Glasgow. *Cable Address:* "Yarrow, Glasgow." *Codes:* A.B.C., Bentley's.

OVERSEAS ADDRESS:

British Columbia—Yarrows, Ltd., Victoria.

Yates (John) & Co., Ltd.

EDGE TOOLS (AGRICULTURAL AND PLANTATION)

Head Office and Works: Exchange Works, Aston Manor, Birmingham.

Yates (W. E.), Ltd.

PLAIN AND FANCY WORSTED AND WOOLLEN PIECE GOODS.

Head Office: 31, Aire Street, Leeds, Yorks. *Works:* Wellington Mills and St. Catherine Mills, Bramley, Yorks. *Cable Address:* "Yates, Leeds." *Code:* A.B.C. (5th Edition).

AGENTS OVERSEAS:

Canada—Archer Robertson, Board of Trade Buildings, Montreal. **Australia**—W. H. McCullough & Co., Pty., Ltd., Flinders Lane, Melbourne. **Denmark**—C. S. Sandberg, Chr. IX[1] Gade, Nr. 1, Copenhagen. **Norway**—Elias Corneliussen, 9, Kongens Gade, Christiania. **Italy**—Guilio Gallinari, Via Carrochio 10, Milan.

Yates & Thom, Limited.

STEAM ENGINES, BOILERS, MILLWRIGHTS AND GENERAL ENGINEERING WORKS.

Head Office and Works: Canal Works, Blackburn. *Cable Address:* "Yates, Blackburn." *Codes:* A.B.C., A1, Bedford McNeill.

AGENTS OVERSEAS:

India—Greaves, Cotton & Co., Bombay. **Australia**—F. Saunders, Ltd., 232, Clarence Street, Sydney.

Yorkshire Cable Co., Ltd. (The).

MAKERS OF ELECTRIC WIRES AND CABLES.

Head Office and Works: Harris Street, Bradford. *Cable Address:* "Insulate, Bradford." *Code:* A.B.C. (4th and 5th Editions).

OVERSEAS AGENTS:

Norway—C. Bagge, Christiania. **New Zealand**—Kidd, Garrett & Co., 24, Little Queen Street, Auckland.

Yorkshire Copper Works, Limited.

(*See Advertisement Section, page* **87.**)

MAKERS OF TUBES—COPPER AND BRASS.

Head Office and Works: Leeds. *Cable Address:* "Tubes, Leeds." *Codes:* A.B.C. (4th and 5th Editions), Lieber's, Marconi International, Scott's and Western Union.

AGENTS OVERSEAS:

Australia—Cowlishaw Bros., 4, Bulletin Place, Sydney; Queensland Machinery Co., Ltd., 142-156, Albert Street, Brisbane; McGlew & Co., 17, Waymouth Street, Adelaide; Knox, Schlapp & Co., Collins House, 360, Collins Street, Melbourne; Saunders & Stuart, King Street, Perth (W.A.). **Canada**—Peacock Bros., 179, Delorimier Avenue, Montreal. **Denmark**—Sven Aage Andersen, Lovstraede 9, Copenhagen. **Italy**—Chas. de Grave Sells, 5, Via Ponte Calvi, Genoa; Vitale Modiano di Giuseppe, Via Dante, 9, Milano. **Newfoundland**—Engineering Equipment Co., Renouf Building, St. John's. **New Zealand**—Dansey & Gavey (Box 1367), 17, Shortland Street, Auckland. **Norway**—Morten Engebretsen, Tordenskjolds Gade 7, Christiania. **S. Africa**—Hannam Bonsall & Co., Maxwell Buildings, Harrison Street, Johannesburg. **Sweden**—C. A. Clase, Norra Hamngatan 22, Gothenburg. **U.S.A.**—Geo. S. Fowler Co., Inc., Home Life Building, Washington, D.C.; Ford & Geirrine, Merchants' Exchange Building, San Francisco.

Yorkshire Insurance Co., Ltd.

(*See Advertisement Section, page* **194.**)

Head Office: St. Helen's Square, York.

Youngs.

(*See Advertisement Section, page* **60.**)

LIFTING AND HOISTING APPLIANCES AND HYDRAULIC TOOLS.

Head Office and Works: Ryland Street Works, Birmingham. *Cable Address:* "Oldens, Birmingham." *Codes:* Lieber's, Premier, A.B.C. (5th Edition).

MEMBERS OF THE FEDERATION of BRITISH INDUSTRIES

MANUFACTURES and PRODUCTS

IN the list below no addresses are given. These will be found in the alphabetical List of "F.B.I. Members (Companies and Firms)" given in the preceding Section.

It is obviously impossible to give in a volume of these dimensions a complete list of British manufacturers and products.

Buyers consulting this book, who wish to ascertain the names of makers of a product not specifically mentioned therein, will probably be able to obtain their requirements by communicating with firms manufacturing similar products. Alternatively, they are invited to communicate their requirements to the Secretary, Overseas Department, Federation of British Industries, 39, St. James's Street, London, S.W.1, when the names of makers or other information required will be forwarded.

A

Abrasives

Acton & Borman, Ltd.
Canning (W.) & Co.
Goldsworthy (Thomas) & Sons.
Universal Grinding Wheel Co., Ltd.

Abrasive Machinery

Canning (W.) & Co.
Churchill (Charles) & Co., Ltd.
Holroyd (John) & Co., Ltd.
Jones (A. A.) & Shipman, Ltd.
Selson Engineering Co., Ltd.
Universal Grinding Wheel Co., Ltd.

Abrasive Wheels

Acton & Borman, Ltd.
British Abrasive Wheel Co., Ltd.
Canning (W.) & Co.
Patent Shaft & Axletree Co., Ltd.
Universal Grinding Wheel Co., Ltd.

Accessories, Electrical, for Power, Lighting, Bells, Signalling, &c.

(*See "Electrical Accessories."*)

Accumulators, Electric

(*See "Electric Accumulators."*)

Accumulators, Hydraulic

(*See "Hydraulic Accumulators."*)

Acetanilide

Boake (A.), Roberts & Co., Ltd.
Boots Pure Drug Co., Ltd.
British Dyestuffs Corporation, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Acetannin

British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Acetates

Boake (A.), Roberts & Co., Ltd.
British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Acetic Anhydride

Boake (A.), Roberts & Co., Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Acetylene Gas Lighting Plant

Acetylene Corporation of Great Britain, Ltd.
Braby (Frederick) & Co., Ltd.
Chance Bros. & Co., Ltd.
Matthews & Yates, Ltd.

Acetylene Welding Plant

Acetylene Corporation of Great Britain, Ltd.
British Oxygen Co., Ltd.
Churchill (Charles) & Co., Ltd.
Hydrogen Oxygen & Plant Co., Ltd.
Matthews & Yates, Ltd.

Acid, Acetic

May & Baker, Ltd.
United Alkali Co., Ltd.

Acid, Acetyl Salicylic (Aspirin)

Boots Pure Drug Co., Ltd.
British Cellulose & Chemical Manufacturing Co., Ltd.
British Drug Houses, Ltd.
British Dyestuffs Corporation, Ltd.
Bush (W. J.) & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Acid, Boric (Boracic)

Borax Consolidated, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Acid, Benzoic

Boake (A.), Roberts & Co., Ltd.
British Dyestuffs Corporation, Ltd
Bush (W. J.) & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Acid, Carbolic & Cresylic (Crude)

Baird (William) & Co., Ltd.
British Dyestuffs Corporation, Ltd.
Brotherton & Co., Ltd.
Burt, Boulton & Haywood, Ltd.
Butler (William) & Co. (Bristol), Ltd.
Cooper (William) & Nephews
Dorman, Long & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Forbes, Abbott & Lennard
Gas Light & Coke Co., Ltd.
Major & Co., Ltd.
May & Baker, Ltd.
Newton, Chambers & Co., Ltd.
Redbourn Hill Iron & Coal Co., Ltd.
South Metropolitan Gas Co.
Staveley Coal & Iron Co., Ltd.

Acid, Carbolic (Cryst. Phenol)

British Dyestuffs Corporation, Ltd.
Brotherton & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd
Gas Light & Coke Co.
May & Baker, Ltd.
Redbourn Hill Iron & Coal Co., Ltd.
South Metropolitan Gas Co.

Acid, Chloracetic

Castner-Kellner Alkali Co., Ltd.
May & Baker, Ltd.

Acid, Chromic

British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd
May & Baker, Ltd.

Acid, Citric

Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Acid, Cresylic *(See "Acid, Carbolic.")*

Acids, Fatty

Bibby (J.) & Sons, Ltd.
Boake (A.), Roberts & Co., Ltd.
Hess (A.) & Brother, Ltd.

Acid, Formic

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Acid, Gallic

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Acid, Hydrobromic

Boots Pure Drug Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Acid, Hydrochloric

British Cotton and Wool Dyers' Association, Ltd.
British Dyestuffs Corporation, Ltd.
Castner-Kellner Alkali Co., Ltd.
Chance & Hunt, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Explosives Trades, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.
South Metropolitan Gas Co.
Spencer, Chapman & Messel, Ltd.
Staveley Coal & Iron Co., Ltd.
United Alkali Co., Ltd.

Acid, Lactic

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Acid Manufacturing Plant

(See "Chemical Plant.")

Acid, Muriatic

(See "Acid, Hydrochloric.")

Acid, Nitric

British Cotton & Wool Dyers' Assn., Ltd.
British Dyestuffs Corporation, Ltd.
Brotherton & Co., Ltd.
Canning (W.) & Co.
Chance & Hunt, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Explosives Trades, Ltd.
Forbes, Abbott & Lennard, Ltd.
Howards & Sons, Ltd.
Leitch (John W.) & Co.
Mey & Baker, Ltd.
Pease & Partners, Ltd.
South Metropolitan Gas Co.
Spencer Chapman & Messel, Ltd.
Staveley Coal & Iron Co., Ltd.
United Alkali Co., Ltd.

Acid, Phosphoric

Boake (A.), Roberts & Co., Ltd.
Borax Consolidated, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Acid, Picric

British Dyestuffs Corporation, Ltd.
Brotherton & Co., Ltd.
May & Baker, Ltd.

Acid, Pyrogallic

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Acid, Salicylic

Boake (A.), Roberts & Co., Ltd.
Boots Pure Drug Co., Ltd.
British Cellulose & Chemical Manufacturing Co., Ltd.
British Drug Houses, Ltd.
British Dyestuffs Corporation, Ltd.
Bush (W. J.) & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Gas Light & Coke Co.
Howards & Sons, Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Acid, Stearic *(See "Stearin.")*

Acid, Sulphanilic

British Drug Houses, Ltd.
British Dyestuffs Corporation, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Acid, Sulphuric

British Dyestuffs Corporation, Ltd.
Brotherton & Co., Ltd.
Chance & Hunt, Ltd.
Chloride Electrical Storage Co., Ltd.
Dorman, Long & Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Explosives Trades, Ltd.
Forbes, Abbott & Lennard, Ltd.
Lawes' Chemical Manure Co., Ltd.
Leitch (John W.) & Co.
May & Baker, Ltd.
Pease & Partners, Ltd.
South Metropolitan Gas Co.
Spence (Peter) & Sons, Ltd.
Spencer, Chapman & Messel, Ltd.
Staveley Coal & Iron Co., Ltd.
United Alkali Co., Ltd.

Acid, Sulphurous

Boake (A.), Roberts & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Explosives Trades, Ltd.
May & Baker, Ltd.

Acid, Tannic

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Acid, Tartaric

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Advertising Signs & Tablets

(See "Signs and Tablets, Advertising," and "Signs, Tablets and Novelties.")

Adzes *(See "Axes.")*

Aerated & Mineral Waters

Hancock (William) & Co., Ltd.
Harrod's, Ltd.

Aerated Water Machinery & Equipment

Projectile & Engineering Co., Ltd.

Aerial Ropeways *(See Ropeways, Aerial.")*

Aeroplanes

Aircraft Manufacturing Co., Ltd.
Armstrong Siddeley Motors, Ltd.
Austin Motor Co., Ltd.
Beardmore (William) & Co., Ltd.
Bristol Aeroplane Co., Ltd.
Central Aircraft Co.
Fairfield Shipbuilding & Engineering Co., Ltd.
Grahame White Co., Ltd.
Handley Page, Ltd.
Martinsyde, Ltd.
Roe (A. V.) & Co., Ltd.
Short Bros. (Rochester & Bedford), Ltd.
Sopwith Aviation & Engineering Co., Ltd.
Vickers, Ltd.

Aeroplane & Airship Accessories

Aircraft Manufacturing Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Bath Aircraft, Ltd.
Benton & Stone, Ltd.
Bristol Aeroplane Co., Ltd.
Brooks (J. B.) & Co., Ltd.
Collyer (John) & Co., Ltd.
Davis & Timmins, Ltd.
Dover, Ltd.
Guest, Keen & Nettlefolds, Ltd.
Handley Page, Ltd.
Heywood (John), Ltd.
International Paint & Compositions Co., Ltd.
Jennings (George), Ltd.
Joseph (N. C.)
Kayser, Ellison & Co., Ltd.
Lucas (Joseph), Ltd.
Marston (John). Ltd.
North British Rubber Co., Ltd.
Palmer Tyre, Ltd.
Robinhood Engineering Works, Ltd.
Roe (A. V.) & Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Sankey (Joseph) & Sons, Ltd.
Short Bros. (Rochester & Bedford), Ltd.
Smith (S.) & Sons (Motor Accessories), Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.
Stone (J.) & Co., Ltd.
Teeside Bridge & Engineering Works, Ltd.
Triplex Safety Glass Co., Ltd.
Tucker (J. H.) & Co., Ltd.
Vickers, Ltd.
White (E. T.) & Co., Ltd.
Wright (John & Edwin), Ltd.

Aeroplane Cloth

Bright (John) & Bros., Ltd.
Brown (John S.) & Sons, Ltd.
Emsley (J.) & Co., Ltd.
Grane Manufacturing Co., Ltd.

Aeroplane Cloth—*continued.*

Greengate & Irwell Rubber Co., Ltd.
Horrockses, Crewdson & Co., Ltd.
Hoyle (Joshua) & Sons, Ltd.
Kershaw, Leese & Co., Ltd.
Stott (James), Ltd.
Tootal Broadhurst Lee Co., Ltd.

Aeroplane Dope

British Cellulose & Chemical Manufacturing Co., Ltd.
Clark (Robert, Ingham) & Co., Ltd.
Explosives Trades, Ltd.
International Paint & Compositions Co., Ltd.
Jenson & Nicholson, Ltd.
Rose (Sir W. A.) & Co., Ltd.

Aeroplane Engines

Aircraft Manufacturing Co., Ltd.
Armstrong Siddeley Motors, Ltd.
Beardmore (William) & Co., Ltd.
Bristol Aeroplane Co , Ltd.
Gwynnes, Ltd.
Handley Page, Ltd.
Hooker (Peter), Ltd.
Napier (D.) & Son, Ltd.
Rolls-Royce, Ltd.
Sunbeam Motor Car Co., Ltd.
White (E. T.) & Co.
White (J. Samuel) & Co., Ltd.

Aeroplane Varnish

Berger (Lewis) & Sons, Ltd.
British Cellulose & Chemical Manufacturing Co., Ltd.
Clark (Robert Ingham) & Co., Ltd.
Docker Bros., Ltd.
Handley Page, Ltd.
International Paint & Compositions, Co., Ltd.
Jenson & Nicholson, Ltd.
Rose (Sir W. A.) & Co., Ltd.

Agricultural Implements & Tools

Agricultural & General Engineers, Ltd.
Beardshaw (J.) & Son, Ltd.
Blackstone & Co., Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Garrett (Richard) & Sons, Ltd.
Hardy Patent Pick Co., Ltd.
Hollings & Guest, Ltd.
Kayser, Ellison & Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Ransomes, Sims & Jefferies, Ltd.
Ruston & Hornsby, Ltd.
Sanderson Bros. & Newbould, Ltd.
Stott (James), Ltd.
Yates (John) & Co., Ltd.

Agricultural Machinery

Agricultural & General Engineers, Ltd.
Blackstone & Co., Ltd.
Boby (Robert), Ltd.
Clayton & Shuttleworth, Ltd.
Crossley Bros., Ltd.
Fowler (John) & Co. (Leeds), Ltd
Garrett (Richard) & Sons, Ltd.
Hollings & Guest, Ltd.
Lister (R. A.) & Co., Ltd.
McLaren (J. & H.), Ltd.
Marshall, Sons & Co., Ltd.
Ransomes, Sims & Jefferies, Ltd.
Ruston & Hornsby, Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.
Wolseley Sheep Shearing Machine Co., Ltd.

Agricultural Motors

Agricultural & General Engineers, Ltd.
Aircraft Manufacturing Co., Ltd.
Alldays & Onions, Ltd.
Blackstone & Co., Ltd.
Crossley Bros., Ltd.
Daimler Co., Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Garrett (Richard) & Sons, Ltd.
Marshall, Sons & Co., Ltd.
Robey & Co., Ltd.
Ruston & Hornsby, Ltd.
Tylor (J.) & Sons, Ltd.
White (E. T.) & Co.

Air Filters & Washers

Matthews & Yates, Ltd.
Musgrave & Co., Ltd.
Sturtevant Engineering Co., Ltd.

Air-Guns

Westley, Richards & Co., Ltd.

Airships

Aircraft Manufacturing Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd
Beardmore (William) & Co., Ltd.
North British Rubber Co., Ltd.
Short Bros. (Rochester & Bedford), Ltd.
Spencer (C. G.) & Sons, Ltd.
Vickers, Ltd.

Air & Water Heaters & Coolers

Braby (Frederick) & Co., Ltd.
Brightside Foundry & Engineering Co., Ltd.
Brinjes & Goodwin, Ltd
Cradley Boiler Co., Ltd.
Davidson & Co., Ltd.
Gresham & Craven, Ltd.
Horseley Bridge & Engineering Co., Ltd
Jennings (George), Ltd.
Manlove, Alliott & Co., Ltd.
Matthews & Yates, Ltd.
Musgrave & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Sturtevant Engineering Co., Ltd.

Albumen

May & Baker, Ltd.

Alcohol, Industrial

Distillers Co., Ltd.
May & Baker, Ltd.

Alcohol, Methyl

Calder (James) & Co., Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Alcohol, Solidified

Boots Pure Drug Co., Ltd.

Ale (*See "Beer."*)

Alkaloids

British Drug Houses, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Alloys (*See also "Steel Alloys."*)

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Batchelor, Robinson & Co., Ltd.
Bibby (John), Sons & Co. (Garston), Ltd.
British Aluminium Co., Ltd.
Broughton Copper Co., Ltd.
Callender's Cable & Construction Co., Ltd.
Clifford (Charles) & Son, Ltd.
Cookson & Co., Ltd.
Delta Metal Co., Ltd.
Johnson, Matthey & Co., Ltd.
Muntz's Metal Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Richards (J. H.) & Co., Ltd.
Stone (J.) & Co., Ltd.
United Brassfounders & Engineers, Ltd.
Vickers, Ltd.
Vivian & Sons, Ltd.
White (E. T.) & Co.

Aloin

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Alpaca Fabrics

Benn (J.), Junr.
Empsall & Firth, Ltd.
Emsley (J.) & Co., Ltd.
Foster (John) & Son, Ltd.
Pepper, Lee & Co., Ltd.
Salt (Sir Titus), Bart., Sons & Co., Ltd.
Tootal Broadhurst Lee Co., Ltd.

Alternators (*See "Electric Generators."*)

Alum

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
Spence (Peter) & Sons, Ltd.

Alum, Chrome

British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Aluminium Alloys, Castings & Stampings

(*See under respective headings "Alloys," "Castings," &c.*)

Aluminium, Cast, Ingot, Sheet, &c.

Aluminium Corporation, Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
British Aluminium Co., Ltd.
British Insulated & Helsby Cables, Ltd.
Croft (A. J.) & Co., Ltd.
Explosives Trades, Ltd.
Joseph (N. C.)
Stone (J.) & Co., Ltd.
White (E. T.) & Co.

Aluminium Foil (*See "Foil."*)

Aluminium Paint

(*See "Paint, Aluminium."*)

Aluminium Powder

Aluminium Corporation, Ltd.
Blackwell (George G.), Sons & Co., Ltd.
Explosives Trades, Ltd.
Metal Powders, Ltd.
Vickers, Ltd.

Aluminium Products (Chemical)

British Aluminium Co., Ltd.
British Drug Houses, Ltd.
Joseph (N. C.)
Salt Union, Ltd.
Spence (Peter) & Sons, Ltd
United Alkali Co., Ltd.

Aluminoferric

Spence (Peter) & Sons, Ltd.

Ambulances

Bristol Wagon & Carriage Works Co., Ltd
Wolseley Motors, Ltd.

Ambulance Supplies

(*See "First Aid Outfits."*)

Amidol

British Dyestuffs Corporation, Ltd.
Evans, Sons, Lescher & Webb, Ltd
May & Baker, Ltd.

Amidopyrin

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Ammeters (*See "Instruments, Electrical."*)

Ammonia & Products

(*See "Coal Tar and Ammonia Products."*)

Ammonia, Anhydrous

Forbes, Abbott & Lennard, Ltd.
May & Baker, Ltd.
Liverpool Refrigeration Co., Ltd.

Ammonia, Liquid

Baird (William) & Co., Ltd.
Brotherton & Co., Ltd.
Brymbo Steel Co., Ltd.
Burt, Boulton & Haywood, Ltd.
Chance & Hunt, Ltd.
Dinnington Main Coal Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Forbes, Abbott & Lennard, Ltd.
Gas Light & Coke Co.
Howards & Sons, Ltd.
May & Baker, Ltd.
Pease & Partners, Ltd.

Ammonia Plant (*See "Chemical Plant."*)

Ammonium Acetate

British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Ammonium Benzoate

British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Ammonium Carbonate

Brotherton & Co., Ltd.
Brunner, Mond & Co., Ltd.
Chance & Hunt, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Forbes, Abbott & Lennard, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Ammonium Chloride

British Drug Houses, Ltd.
Brotherton & Co., Ltd.
Brunner, Mond & Co., Ltd.
Chance & Hunt, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.
South Metropolitan Gas Co.
Staveley Coal & Iron Co., Ltd.
United Alkali Co., Ltd.

Ammonium Molybdate

British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Ammonium Nitrate

British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd
Forbes, Abbott & Lennard, Ltd.
Gas Light & Coke Co.
Howards & Sons, Ltd.
May & Baker, Ltd.

Ammonium Perchlorate

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Ammonium Persulphate

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Ammonium Sulphate

British Drug Houses, Ltd.
Clay Cross Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Gas Light & Coke Co.
Howards & Sons, Ltd.
May & Baker, Ltd.
South Metropolitan Gas Co.
Sulphate of Ammonia Association

Ammonium Sulphichthyolate

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Ammunition

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Beardmore (William) & Co., Ltd.
Explosives Trades, Ltd.
Greener (W. W.)
Greenwood & Batley, Ltd.
Westley, Richards & Co., Ltd

Amyl Acetate

Boake (A.), Roberts & Co., Ltd.
British Drug Houses, Ltd.
Bush (W. J.) & Co., Ltd.
May & Baker, Ltd.

Amyl Esters

Boake (A.), Roberts & Co., Ltd.
British Drug Houses, Ltd.
May & Baker, Ltd.

Analytical Reagents

(*See "Chemicals, Analytical."*)

Anchors

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Vickers, Ltd.

Angles (*See "Iron Angles" and "Steel Angles."*)

Aniline Colours (*See "Dyestuffs, Synthetic."*)

Aniline Oil & Salts

British Dyestuffs Corporation, Ltd.
Staveley Coal & Iron Co., Ltd.

Annealing Pans

Alldays & Onions, Ltd.
Bayliss, Jones & Bayliss, Ltd.
Braby (Frederick) & Co., Ltd.
Braime (T. F.) & Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Ludlow Bros. (1913), Ltd.
National Galvanizers, Ltd.
Osborn (Samuel) & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.

Anthracene

Bell Bros., Ltd
Blaenavon Co., Ltd.
Brotherton & Co., Ltd.
Burt, Boulton & Haywood, Ltd.
Butler (William) & Co. (Bristol), Ltd.
Dinnington Main Coal Co., Ltd.
Dorman, Long & Co., Ltd.
Forbes, Abbott & Lennard, Ltd.
Gas Light & Coke Co., Ltd.
Major & Co., Ltd.
Redbourn Hill Iron & Coal Co., Ltd.
South Metropolitan Gas Co.
Staveley Coal & Iron Co., Ltd.

Anthracite (*See "Coal."*)

Anti-Friction Metals

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Clifford (Charles) & Son, Ltd.
Cookson & Co., Ltd.
Delta Metal Co., Ltd.
Explosives Trades, Ltd.
McKechnie Bros., Ltd.
Phosphor Bronze Co., Ltd.
Richards (J. H.) & Co., Ltd.
Stone (J.) & Co., Ltd.
United Brassfounders & Engineers, Ltd.
White (E. T.) & Co.
Wigglesworth (Frank) & Co., Ltd.
Young's

Antimony

Cookson & Co., Ltd.
Johnson, Matthey & Co., Ltd.

Antimony, Black

Cookson & Co. Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Antimony Products (Chemical)

Cookson & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.
Whiffen & Sons, Ltd.

Antipyrin

Bush (W. J.) & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Anvils

Alldays & Onions, Ltd.
Darlington Forge Ltd. (The)
Hadfields, Ltd.
Newton, Chambers & Co., Ltd.

Arc Lamps & Accessories

(See "Electric Arc Lamps.")

Archimedean Drills

(See "Drills, Hand and Breast.")

Armatures, Electric

(See "Electric Generators.")

Armour Plates

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Beardmore (William) & Co., Ltd.
Brown (John) & Co., Ltd.
Vickers, Ltd.

Arrowroot

Crosse & Blackwell (Mfg. Co.), Ltd.

Arsenic Salts

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Art Metal-work *(See "Iron and Steel Work, Art, and Ornamental.")*

Artificial Stone

Bell's United Asbestos Co., Ltd.
Bolckow, Vaughan & Co., Ltd
Fielding & Platt, Ltd.
Hollings & Guest, Ltd.
Tredegar Iron & Coal Co., Ltd.

Artificial Stone Machinery

Brinjes & Goodwin, Ltd.
Fielding & Platt, Ltd.
Hollings & Guest, Ltd.
Stothert & Pitt, Ltd.

Asbestos & Asbestos Goods

Bell's United Asbestos Co., Ltd.
Greengate & Irwell Rubber Co., Ltd.
Hobdell, Way & Co., Ltd.
Turner Bros. Asbestos Co., Ltd.

Asbestos Cement

Bell's United Asbestos Co., Ltd.
Hobdell, Way & Co., Ltd.
Turner Bros. Asbestos Co., Ltd.

Asbestos Machinery

Bridge (David) & Co., Ltd.
Brinjes & Goodwin, Ltd.
Hollings & Guest, Ltd.

Ash Handling Machinery.

(See "Coal and Ash Handling Machinery.")

Asphalte

Anderson (D.) & Son, Ltd.
Blackwell (Robert W.) & Co., Ltd.
Butler (William) & Co. (Bristol), Ltd.
Clay Cross Co., Ltd.
Major & Co., Ltd.
Neuchatal Asphalte Co., Ltd.
Sheepbridge Coal & Iron Co., Ltd.

Assaying

Johnson, Matthey & Co., Ltd.

Astronomical Instruments

(See "Instruments, Astronomical.")

Atropine & Salts

Boots Pure Drug Co., Ltd.
British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Augers & Auger Bits

Kayser, Ellison & Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Sanderson Bros. & Newbould, Ltd.

Automatic Machines (Ticket, &c.)

British Automatic Co., Ltd.

Automobiles & Accessories

(See "Motor Cars, etc.")

Automobiles, Electric

(See "Battery Vehicles.")

Awls (Carpenters', Coopers', Saddlers', &c.)

Mountford (Fredk.) (Birmingham), Ltd
Osborn (Samuel) & Co., Ltd.

Awnings & Awning Cloth

Bright (John) & Bros., Ltd.
Elton Cop Dyeing Co., Ltd.
Horrockses, Crewdson & Co., Ltd.
Hoyle (Joshua) & Sons, Ltd.
Piggott Bros. & Co., Ltd.
Stott (James), Ltd.
Whitehead (David) & Sons, Ltd.

Axes

Hadfields, Ltd.
Hardy Patent Pick Co., Ltd.
Kayser, Ellison & Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.
Vickers, Ltd.

Axle-boxes

Allen (Edgar) & Co., Ltd.
Beyer, Peacock & Co., Ltd.
Bristol Wagon & Carriage Works Co., Ltd.
Consolidated Signal Co., Ltd.
Darlington Forge, Ltd. (The)
Fowler (John) & Co. (Leeds), Ltd.
Hadfields, Ltd.
Hudson (Robert), Ltd.
Hurst, Wilson & Co., Ltd.
Jessop (William) & Sons
MacLellan (P. & W.), Ltd.

Axle-boxes—*continued.*

Partington Steel & Iron Co., Ltd.
Patent Axle Box & Foundry Co., Ltd.
Roberts (Charles) & Co., Ltd.
Sheepbridge Coal & Iron Company, Ltd.
Spencer (John) & Sons, Ltd.
Stone (J.) & Co., Ltd.
Summerson (Thomas) & Sons, Ltd.

Axle Pulleys (*See "Ironmongery, Builders."*)

Axles, Coach & Cart-arm

Andrew (John Henry) & Co., Ltd.
Bristol Wagon & Carriage Works Co., Ltd.
Brockhouse (J.) & Co., Ltd.
Connolly (J. W. & T.), Ltd.
Hadfields, Ltd.

Axles, Motor

Agricultural & General Engineers, Ltd.
Allen (Edgar) & Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Beardmore (William) & Co., Ltd.
Bessemer (Henry) & Co., Ltd
Brockhouse (J.) & Co., Ltd.
Brown Bayley's Steel Works, Ltd.
Brown (John) & Co., Ltd.
Connolly (J. W. & T.), Ltd.
Gilbertson (W.) & Co., Ltd.
Greenwood & Batley, Ltd.
Hadfields, Ltd.
Hooker (Peter), Ltd.
Jessop (William) & Sons, Ltd.
Jonas & Colver, Ltd.
Projectile & Engineering Co., Ltd.
Kirkstall Forge Co., Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.
Tilling Stevens, Ltd.
Tubes, Ltd.
Vickers, Ltd.
White (E. T.) & Co.

Axles, Rail & Tram

Agricultural & General Engineers, Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Beardmore (William) & Co., Ltd.
Bessemer (Henry) & Co., Ltd.
Birmingham Railway Carriage & Wagon Co., Ltd
Blackwell (Robert W.) & Co., Ltd.
Blaenavon Co., Ltd.
Bristol Wagon & Carriage Works Co., Ltd.
Brown Bayley's Steel Works, Ltd.
Brown (John) & Co., Ltd.
Darlington Forge, Ltd. (The)
Firth (Thos.) & Sons, Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Fox (Samuel) & Co., Ltd.
Gloucester Railway Carriage & Wagon Co., Ltd
Hawthorn (R. & W.), Leslie & Co., Ltd.
Hill (J. & P.)
Holman Bros., Ltd
Hudson (Robert), Ltd.
Jessop (William) & Sons, Ltd.
Metropolitan Carriage, Wagon & Finance Co., Ltd.
Monk Bridge Iron & Steel Co., Ltd.
North British Locomotive Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Spencer (John) & Sons, Ltd.
Steel, Peech & Tozer, Ltd.
Taylor Bros. & Co., Ltd.
Vickers, Ltd.
Workington Iron & Steel Co., Ltd.

B

Babbit Metal (*See "Anti-friction Metal."*)

Baby Carriages, Go-Carts & Perambulators

Central Aircraft Co.

Bacteriological Apparatus

Evans, Sons, Lescher & Webb, Ltd.

Bacteriological Preparations

Evans, Sons, Lescher & Webb, Ltd.

Badges, Medals, &c.

Glover & Main, Ltd.
Greenwood & Batley, Ltd.
Jennens & Co., Ltd.
Sale (H. B.), Ltd.
Smith (John), Ltd.

Bag Hooks (*See "Hand Tools, Sundry."*)

Bags and Bagging (Jute, &c.)

Boath (John), Junr. & Co., Ltd.
Mitchell (Andrew) & Co., Ltd.
Nagersheth (M.) Sons
Piggott Bros. & Co., Ltd.
Wright (John & Edwin), Ltd.

Bags, Cotton

Kershaw, Leese & Co., Ltd.
Mitchell (Andrew) & Co., Ltd.
Nagersheth (M.) Sons
Piggott Bros. & Co., Ltd.
Stott (James), Ltd.

Bags (Gas) (*See "Rubber Bags."*)

Bags, Ladies' Chain

Collyer (John) & Co., Ltd.
Orbito Co., Ltd.

Bags, Paper (*See "Paper Bags."*)

Bags, Travelling (*See "Trunks, etc."*)

Bakers' & Confectioners' Machinery & Equipment

Brinjes & Goodwin, Ltd.
Carron Company.

Baking Pans & Dishes

(*See "Hollow-ware and Tin-ware."*)

Baking Powder

Boake (A.), Roberts & Co., Ltd.
Boots Pure Drug Co., Ltd.
Simpson (William) (Manchester), Ltd.
Watford Manufacturing Co., Ltd.

Balances, Chemical & Precision

Avery (W. & T.), Ltd.

Balances, Letter

Avery (W. & T.), Ltd.
Greener (W. W.), Ltd.
Setten & Durward.

Balances, Spring (*See "Weighing Machines."*)

Balata Machinery (*See "India-rubber, Gutta-percha, and Balata Machinery."*)

Ballast Unloaders

(See "Loading and Unloading Plant.")

Ball Mills *(See "Mining Machinery.")*

Balloon Fabric

Aircraft Manufacturing Co., Ltd.
Bright (John) & Bros., Ltd.
Grane Manufacturing Co., Ltd.
Horrockses, Crewdson & Co , Ltd.
Macintosh (Chas.) & Co., Ltd.
Mandleberg (J.) & Co., Ltd.
North British Rubber Co., Ltd.
Tootal, Broadhurst, Lee Co., Ltd.
Vickers, Ltd.
Walker Bros.

Balloons & Parachutes

Aircraft Manufacturing Co., Ltd.
Macintosh (Chas.) & Co., Ltd.
North British Rubber Co., Ltd.
Short Bros. (Rochester & Bedford), Ltd.
Spencer (C. G.) & Sons, Ltd.
Vickers, Ltd.

Bandages, Surgical

(See "Surgical Dressings.")

Banking

Bank of Liverpool & Martins, Ltd.
Barclays Bank, Ltd.
Lloyds Bank, Ltd.
London & Brazilian Bank, Ltd.
London County Westminster & Parr's Bank, Ltd.
Manchester & Liverpool District Banking Co., Ltd.
Williams Deacon's Bank, Ltd.

Bank Notes & Cheques

(See "Engraving.")

Barbotine

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Bar Cutting-off Machines

Accles & Pollock, Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Associated British Machine Tool Makers, Ltd.
Haighs (Oldham), Ltd.
Holroyd (John) & Co., Ltd.

Barges & Lighters

Hill (Charles) & Sons, Ltd.
Mechans, Ltd.
Orr, Watt & Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Short Bros. (Rochester & Bedford), Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Thornycroft (John I.) & Co., Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.

Barium Salts

British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Barometers, Aneroid

Finnigan's, Ltd.
Halden (J.) & Co., Ltd.

Barometers, Standard

(See "Thermometers, etc.")

Barrels & Casks

Acetylene Corporation of Great Britain, Ltd.
Braby (Frederick) & Co., Ltd.
Chilworth Gunpowder Co., Ltd.
Lowrie (W. P.) & Co., Ltd.

Barrel Making & Cooperage Machinery

Kayser, Ellison & Co., Ltd.

Barrows, Metal

Bayliss, Jones & Bayliss, Ltd.
Braby (Frederick) & Co., Ltd.
Braime (T. F) & Co., Ltd.
Bristol Wagon & Carriage Works Co., Ltd.
Harvey (G. A.) & Co. (London), Ltd.
Horseley Bridge & Engineering Co., Ltd.
Hudson (Robert), Ltd.
Ludlow Bros. (1913), Ltd.
Mountford (Fredk.) (Birmingham), Ltd

Barrows, Wood

Bristol Wagon & Carriage Works Co., Ltd.
Remer (John) & Co., Ltd.

Bars, Iron, Copper, &c.

(See under "Iron, etc.")

Baryte

Cookson & Co., Ltd.
Orr's Zinc White, Ltd.
Pease & Partners, Ltd.

Basic Slag

Bolckow, Vaughan & Co., Ltd.
Brymbo Steel Co , Ltd.
Cargo Fleet Iron Co., Ltd.
Cwmfelin Steel & Tinplate Co., Ltd.
Dorman, Long & Co.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Grovesend Steel & Tinplate Co., Ltd.
Lysaght (John), Ltd.
North Eastern Steel Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Park Gate Iron & Steel Co., Ltd.
Partington Steel & Iron Co., Ltd.
Redbourn Hill Iron & Coal Co., Ltd.
Sheepbridge Coal & Iron Co., Ltd.
Steel, Peech & Tozer, Ltd.

Basins

(See under "Enamel-ware" and "Hollow-ware.")

Basket-ware

Finnigans, Ltd.
Ludlow Bros. (1913), Ltd.

Bathing Costumes

(See "Hosiery, Fancy.")

Baths, Enamelled & Porcelain (Cast Iron)

Carron Company.
Collins (Christopher), Ltd.
Doulton & Co., Ltd.
Jennings (George), Ltd.
Newton, Chambers & Co., Ltd.
Stone (J.) & Co., Ltd.

Baths, Porcelain

Doulton & Co., Ltd.
Jennings (George), Ltd.

Baths, Rubber

Cow (P. B.) & Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Ingram (J. G.) & Son, Ltd.
Macintosh (Chas.) & Co., Ltd.
North British Rubber Co., Ltd.
Piggott Bros. & Co., Ltd.
Vickers, Ltd.

Baths, Sheet Metal, Galvanized, Japanned, &c. *(See "Hollow-ware," "Galvanised Iron Goods, &c.")*

Baths, Shower

Carron Company.
Doulton & Co., Ltd.
Jennings (George), Ltd.

Batteries (Primary)

(See "Electric Batteries, Primary.")

Batteries (Storage)

(See "Electric Accumulators.")

Battery Vehicles

Agricultural & General Engineers, Ltd.
Chloride Electrical Storage Co., Ltd.
Greenwood & Batley, Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.

Battle-ships *(See "Warships.")*

Beads, Metal

British Aluminium Co., Ltd.
Suckling, Ltd.

Bearing Metals *(See "Anti-friction Metals.")*

Bearings

Bridge (David) & Co., Ltd.
Explosives Trades, Ltd.
Hurst, Nelson & Co., Ltd.
Monometer Manufacturing Co. (1918), Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
Parson's Marine Steam Turbine Co., Ltd.
Patent Axle Box & Foundry Co., Ltd.
Ransome & Marles Bearing Co., Ltd.
Richards (J. H.) & Co., Ltd.
Stone (J.) & Co., Ltd.
Unbreakable Pulley & Millgearing Co., Ltd.
Vickers, Ltd.
White (E. T.) & Co.
Wigglesworth (Frank) & Co., Ltd.
Yates & Thom, Ltd.

Bearings, Ball

Brockhouse (J.) & Co., Ltd.
Chesterfield Tube Co., Ltd.
Gilbertson (W.) & Co., Ltd.
Hoffmann Manufacturing Co., Ltd.
Ransome & Marles Bearing Co., Ltd.
Wigglesworth (Frank) & Co., Ltd.
Williams (Edward)

Bearings, Roller

Chesterfield Tube Co., Ltd.
Gilbertson (W.) & Co., Ltd.
Hadfields, Ltd.
Hoffmann Manufacturing Co., Ltd.
Hudson (Robert), Ltd.
Ransome & Marles Bearing Co., Ltd.
Ransomes & Rapier, Ltd.
Unbreakable Pulley & Millgearing Co., Ltd.
Wigglesworth (Frank) & Co., Ltd.
Wolseley Motors, Ltd.
Tees Side Bridge & Engineering Works, Ltd.

Bearings, Thrust

Hawthorne (Rand W.), Leslie & Co., Ltd.
Hoffmann Manufacturing Co., Ltd.
Phosphor Bronze Co., Ltd.
Ransome & Marles Bearing Co., Ltd.
Rudge-Whitworth, Ltd.
Unbreakable Pulley & Millgearing Co., Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.
Wigglesworth (Frank) & Co., Ltd.

Beds, Camp & Folding

(See "Furniture, Camp.")

Beds, Water *(See "Rubber Beds, etc.")*

Bedspreads

Barlow & Jones, Ltd.
Brown (John S.) & Sons, Ltd.
Calico Printers' Association, Ltd.
Lister & Co., Ltd.
Mitchell (Andrew) & Co., Ltd.
Simpson & Godlee, Ltd.

Bedsteads, Brass & Iron

Fitter Bros.
Smith & Cartwright Bedstead Co., Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.

Bedsteads, Wooden

Birch (William), Ltd.
Central Aircraft Co.
Foster (John) & Son Ltd.
Hawkes (O. C.), Ltd.
Lebus (Harris)
Smith & Cartwright Bedstead Co., Ltd
White, Allom & Co.

Beehives

Vickers, Ltd.

Beers, Ales, Stout & Porter

Allsopp (Samuel) & Sons, Ltd.
Ansell's Brewery, Ltd.
Barclay, Perkins & Co., Ltd.
Bristol Brewery, Georges & Co., Ltd.
Bristol United Breweries, Ltd.
Courage & Co., Ltd.
Hancock (William) & Co., Ltd.
Holt Brewery Co., Ltd.
Holt (Joseph).
Maclachlan (G. & J.), Ltd.
Mann, Crossman & Paulin, Ltd.
McEwan (William) & Co., Ltd.
Phipps (P.) & Co. (Northampton & Towcester Breweries, Ltd.)
Rogers (W. J.), Ltd.
Tetley (Joshua) & Sons, Ltd.
Watney Combe, Reid & Co., Ltd.
Warwicks & Richardsons, Ltd.
Whitbread & Co., Ltd.
Wilson's Brewery, Ltd.

Beer, Lager

Allsopp (Samuel) & Sons, Ltd.
Barclay, Perkins & Co., Ltd.
McEwan (William) & Co., Ltd.

Beeswax *(See "Wax.")*

Bell Fittings, Church & School, &c.

Laing (Sir James) & Sons, Ltd.

Bell Fittings, Electric

(See "Electrical Accessories.")

Bellows

Alldays & Onions, Ltd.

Bells, Cycle

Explosives Trades, Ltd.
Lucas (Joseph), Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
Sterling Telephone & Electric Co., Ltd.

Bells, Electric *(See "Electrical Accessories.")*

Bells, Various

Setten & Durward

Belt-dressing

Bell's United Asbestos Co., Ltd.
Bright (John) Bros., Ltd.
Cooper (William) & Nephews
Mountford (Fredk.) (Birmingham), Ltd.
Turner Bros. Asbestos Co., Ltd.

Belt Fasteners

Bright (John) & Bros., Ltd.
Hobdell, Way & Co., Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
Pugh (Charles H.), Ltd.
Turner Bros. Asbestos Co., Ltd.

Belting, Balata

Bell's United Asbestos Co., Ltd.
Dick (R. & J.), Ltd.
Greengate & Irwell Rubber Co., Ltd.
Hepburn, Gale & Ross, Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Macintosh (Chas.) & Co., Ltd.
North British Rubber Co., Ltd.
Stone (J.) & Co., Ltd.
Turner Bros. Asbestos Co., Ltd.
Wood-Milne, Ltd.

Belting, Canvas, &c.

Bright (John) & Bros., Ltd.
Stott (James), Ltd.
Turner Bros. Asbestos Co., Ltd.

Belting, Cotton

Bright (John) & Bros., Ltd.
Hepburn, Gale & Ross, Ltd.
Morgan, Crossley & Co., Ltd.
Moseley (David) & Sons, Ltd.
Stott (James), Ltd.
Turner Bros. Asbestos Co., Ltd

Belting, Hair

Bright (John) & Bros., Ltd.
Hepburn, Gale & Ross, Ltd.
Turner Bros. Asbestos Co., Ltd.

Belting, Leather

Blackwell (Robert W.) & Co., Ltd.
Fairbairn Lawson Combe Barbour, Ltd.
Hepburn, Gale & Ross, Ltd.
Hobdell, Way & Co., Ltd.
Wigglesworth (Frank) & Co., Ltd.

Belting, Rubber

Bell's United Asbestos Co., Ltd.
Greengate & Irwell Rubber Co., Ltd.
Hepburn, Gale & Ross, Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Macintosh (Chas.) & Co., Ltd.
North British Rubber Co., Ltd.
Turner Bros. Asbestos Co., Ltd.
Wood-Milne, Ltd.

Belts, Men's Leather

Brooks (J. B.) & Co., Ltd.
Hepburn, Gale & Ross, Ltd.

Bench Screws *(See "Vices.")*

Bench Stops *(See "Cramps and Clamps.")*

Benches, Fitters'

Alldays & Onions, Ltd.
Heywood (John), Ltd.

Bending Machines

Carron Company.
Greenwood & Batley, Ltd.
Hollings & Guest, Ltd.

Benzene

Asiatic Petroleum Co., Ltd.
British Dyestuffs Corporation, Ltd.
Brotherton & Co., Ltd.
Burt, Boulton & Haywood, Ltd.
Gas Lighting Improvement Co., Ltd.
Leitch (John W.) & Co.
Major & Co., Ltd.
Redbourn Hill Iron & Coal Co., Ltd

Benzine

British Dyestuffs Corporation, Ltd.
Brotherton & Co., Ltd.
Butler (William) & Co. (Bristol), Ltd.
Duckham (Alexander) & Co., Ltd.
Gas Lighting Improvement Co., Ltd.
Leitch (John W.) & Co.
Major & Co., Ltd.
South Metropolitan Gas Co.

Benzol

Baird (William) & Co., Ltd
Bell Bros., Ltd.
Blaenavon Co., Ltd.
Bolckow, Vaughan & Co., Ltd.
British Dyestuffs Corporation, Ltd.
Brotherton & Co., Ltd.
Brunner, Mond & Co., Ltd.
Brymbo Steel Co., Ltd.
Burt, Boulton & Haywood, Ltd
Butler (William) & Co., Ltd.
Cargo Fleet Iron Co., Ltd.
Clay Cross Co., Ltd.
Consett Iron Co., Ltd.
Dinnington Main Coal Co., Ltd.
Dorman, Long & Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Forbes, Abbott & Lennard, Ltd.
Gas Light & Coke Co.
Gas Lighting Improvement Co., Ltd.
Leitch (John W.) & Co.
Low Temperature Carbonisation, Ltd.
Major & Co., Ltd.
May & Baker, Ltd.
Newton, Chambers & Co., Ltd.

Benzol—*continued.*

North-Eastern Steel Co., Ltd.
Partington Steel & Iron Co., Ltd.
Pease & Partners, Ltd.
Redbourn Hill Iron & Coal Co., Ltd.
Samuelson (Sir B.) & Co., Ltd.
Skinningrove Iron Co., Ltd.
South Metropolitan Gas Co.
Strakers & Love
Staveley Coal & Iron Co., Ltd.

Benzocaine

May & Baker, Ltd.

Benzo Naphthol

Evans, Sons, Lescher & Webb, Ltd
May & Baker, Ltd.

Bensyl Chloride

British Dyestuffs Corporation, Ltd.
Boake (A.), Roberts & Co., Ltd.
Castner-Kellner Alkali Co., Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Bevels, Carpenters'

(*See "Hand Tools, Carpenters'."*)

Bevels, Engineers (*See "Squares, etc."*)

Bicycles & Accessories

(*See "Cycles" and "Motor-cycles."*)

Bills (*See "Hooks, Bill and Bush."*)

Binoculars (*See "Instruments Optical."*)

Bins, Corn, Dust, &c.

(*See "Galvanised Iron Goods."*)

Bins, Wood, for Flour, &c.

(*See "Wooden-ware, Domestic."*)

Biscuits

Carr & Co., Ltd.
Jacob (W. & R.) & Co., Ltd.
Peek, Frean & Co., Ltd.
Spillers Milling & Associated Industries, Ltd.

Biscuits (Ship & Dog)

Spillers Milling & Associated Industries, Ltd.

Biscuit-making Machinery

(*See "Bakers' Machinery."*)

Bismuth (Metallic)

Blackwell (George G.), Sons & Co., Ltd.
Dennis (James H.) & Co., Ltd.
Johnson, Matthey & Co., Ltd.
May & Baker, Ltd.

Bismuth Preparations

British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Bismuth, Tribromphenol

British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Bisulphites

Boake (A.), Roberts & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Bits, Carpenters'

Kayser, Ellison & Co., Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
Osborn (Samuel) & Co., Ltd
Saunderson Bros. & Newbould, Ltd.

Bitumen (*See "Pitch."*)

Blacking (*See "Polish."*)

Blackplates

Byass (Robt. B.) & Co., Ltd
Gilbertson (W.) & Co., Ltd.
Gorse Galvanising Co., Ltd.
Grovesend Steel & Tinplate Co., Ltd
Guest, Keen & Nettlefolds, Ltd.
Lysaght (John), Ltd.
Old Castle Iron & Tinplate Co., Ltd
Summers (John) & Sons, Ltd.

Blankets, Cotton

Barlow & Jones, Ltd.
Elton Cop Dyeing Co., Ltd.
Haworth (Richard) & Co., Ltd.
Hoyle (Joshua) & Sons, Ltd.
Kershaw, Leese & Co., Ltd.
Rose, Hewitt & Co.

Blankets, Woollen

Elton Cop Dyeing Co., Ltd.
Porritts & Spencer, Ltd.

Blast Furnace Plant

Arrol (Sir William) & Co., Ltd.
Bradley & Foster Ltd.
Clayton, Son & Co., Ltd.
Head, Wrightson & Co., Ltd.
Markham & Co., Ltd.
Matthews & Yates, Ltd.
Mechans, Ltd.
Motherwell Bridge Co., Ltd.
Newton, Chambers & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Tees Side Bridge & Engineering Works, Ltd
Whessoe Foundry Co., Ltd.
Woodall, Duckham & Jones, Ltd.

Blast Furnaces (*See "Furnaces."*)

Bleaching

Bleachers' Association, Ltd.
Bright (John) & Bros., Ltd.
Brotherton & Co., Ltd.
Langworthy Bros. & Co., Ltd.
Lye (T.) & Sons.
Vernon & Co., Ltd.

Bleaching, Dyeing & Printing Machinery

(*See "Textile Machinery."*)

Bleaching Materials

Boake (A.), Roberts & Co., Ltd.
Brotherton & Co., Ltd.
Castner-Kellner Alkali Co., Ltd.
Electro Bleach & By-Products, Ltd.

Bleaching Materials—*continued.*

Explosives Trades, Ltd.
Lye (T.) & Sons
Salt Union, Ltd.
United Alkali Co., Ltd.

Blind Cords *(See "Cordage.")*

Blind Furniture and Fittings (Metal)

(See "Brassfoundery, Builders', etc.")

Blinds, Window

Finlay (James) & Co., Ltd.
Haworth (Richard) & Co., Ltd.
Piggott Bros. & Co., Ltd.
Stott (James), Ltd.

Blocks, Scribing

Hooker (Peter), Ltd.
Mountford (Fredk.) (Birmingham), Ltd.

Blocks & Tackle, Electric

Callender's Cable & Construction Co., Ltd.
Holt & Willetts

Blocks & Tackle, Mechanical

Bullivant & Co., Ltd.
Holt & Willetts
Piggott Bros. & Co., Ltd.
Youngs

Blocks, Photoprocess, Line & Engraved

Chorley & Pickersgill, Ltd.
Waterlow & Sons Ltd.

Blocks, Wood, for Gas & Electric Fittings

Callender's Cable & Construction Co., Ltd.
Tucker (J. H.) & Co., Ltd.

Blowers

Ashwell & Nesbit, Ltd.
Sturtevant Engineering Co., Ltd.

Blowers & Blowing Engines

Alldays & Onions, Ltd.
Donkin (Bryan) & Co., Ltd.
Greenwood & Batley, Ltd.
Markham & Co., Ltd.
Matthews & Yates, Ltd.
Monometer Manufacturing Co. (1918), Ltd.
Musgrave & Co., Ltd.
Parsons (C. A.) & Co., Ltd.
Sandycroft, Ltd.
Thwaites Bros., Ltd.
Vickers, Ltd.
Yates & Thom, Ltd.

Blow Lamps *(See "Lamps.")*

Blow Pipes

Acetylene Corporation of Great Britain, Ltd.
Alldays & Onions, Ltd.
British Oxygen Co., Ltd.
Hydrogen, Oxygen & Plant Co , Ltd.
White (E T.) & Co.

Blue

Berger (Lewis) & Sons, Ltd.

Blue, Prussian

Berger (Lewis) & Sons, Ltd
Gas Light & Coke Co.
Orr's Zinc White, Ltd.

Board, Coated

Blackwell (Robert W.) & Co., Ltd.
Dickinson (John) & Co., Ltd.
Peebles (A. M.) & Son, Ltd.
Pirie (Alex.) & Sons, Ltd.
Spicer (James) & Sons, Ltd

Board, Paste

Blackwell (Robert W.) & Co., Ltd.
Dickinson (John) & Co., Ltd.
Limehouse Paperboard Mills, Ltd.
Peebles (A. M.) & Son, Ltd.
Pirie (Alex.) & Sons, Ltd.
Spicer (James) & Sons, Ltd
Waterlow & Sons Ltd.

Board, Pulp

Blackwell (Robert W.) & Co., Ltd.
Boving & Co., Ltd.
Dickinson (John) & Co., Ltd.
Limehouse Paperboard Mills, Ltd.
Peebles (A M.) & Son, Ltd.
Pirie (Alex.) & Sons, Ltd.
Remer (John) & Co., Ltd.
Spicer (James) & Sons, Ltd.
Weir (J. A.), Ltd.

Boards, Draining, Chopping, Pastry, &c.

(See "Woodenware, Domestic.")

Boat Hooks & Fittings

(See "Shipping Tackle.")

Boats, Collapsible

Mechans, Ltd.
Seamless Steel Boat Co., Ltd.
Short Bros. (Rochester & Bedford), Ltd.

Boats, Rowing

Clarke, Chapman & Co., Ltd.
Laing (Sir James) & Sons, Ltd.
Mechans, Ltd.
Seamless Steel Boat Co., Ltd.
Short Bros. (Rochester & Bedford), Ltd
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.

Bobbins

Joseph (N. C.)
Remer (John) & Co., Ltd.
Wilson Bros. Bobbin Co., Ltd.

Bogies & Underframes (for Railway Vehicles)

Beardmore (William) & Co., Ltd.
Birmingham Railway Carriage & Wagon Co., Ltd.
Bristol Wagon & Carriage Works Co., Ltd.
Brush Electrical Engineering Co., Ltd.
Clayton & Shuttleworth, Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Hawthorne (R. and W.), Leslie & Co., Ltd.
Head, Wrightson & Co., Ltd.
Hill (J. & P.)
Hudson (Robert), Ltd.
Hurst, Nelson & Co., Ltd.
Leeds Forge Co., Ltd.
MacLellan (P. & W.), Ltd.
Mechans, Ltd.
Metropolitan Carriage, Wagon & Finance Co., Ltd.
Orr, Watt & Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Vickers, Ltd.

Boiler Accessories

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Ashwell & Nesbit, Ltd.
Blakeborough (J.) & Sons, Ltd.
Brightside Foundry & Engineering Co., Ltd.
Cradley Boiler Co., Ltd.
Garrett (Richard) & Sons, Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Hopkinson (J.) & Co., Ltd.
Matthews & Yates, Ltd.
Ransomes, Sons & Jefferies, Ltd.
United Brassfounders & Engineers, Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.
Yates & Thom, Ltd.

Boiler Composition & Fluid

Bell's United Asbestos Co., Ltd.
Cooper (William) & Nephews
Hobdell, Way & Co., Ltd.
International Paint & Compositions Co., Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
Snowdon, Sons & Co., Ltd.

Boiler Coverings

(*See "Insulating Materials."*)

Boiler Plates

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Baldwin's, Ltd.
Barrow Hematic Steel Co., Ltd.
Beardmore (William) & Co., Ltd.
Bolckow, Vaughan & Co., Ltd.
Consett Iron Co., Ltd.
Guest, Keen & Nettlefolds, Ltd.
Hawthorne (R. W.), Leslie & Co., Ltd.
Leeds Forge Co., Ltd.
North British Locomotive Co., Ltd.
Park Gate Iron & Steel Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Port Talbot Steel Co., Ltd.
Spencer (John) & Sons, Ltd.
Stewarts & Lloyds, Ltd.
Vulcan Foundry, Ltd.
White (J. Samuel) & Co., Ltd.

Boiler Plates (Copper)

(*See "Copper Plates."*)

Boiler Tubes (*See "Tubes, Boiler."*)

Boilers, Copper

Braby (Frederick) & Co., Ltd.
Brightside Foundry & Engineering Co., Ltd.
Brinjes & Goodwin Co., Ltd
Bulpitt & Sons, Ltd.
Jennings (George), Ltd.
Manlove, Alliott & Co., Ltd.
Stone (J.) & Co., Ltd.
United Brassfounders & Engineers, Ltd.
Wright (John) & Eagle Range, Ltd.

Boilers, Cornish & Lancashire

Agricultural & General Engineers, Ltd.
Brightside Foundry & Engineering Co., Ltd.
Clayton, Son & Co., Ltd.
Cradley Boiler Co., Ltd.
Davey Bros., Ltd.
Davey, Paxman & Co., Ltd.
Holman Brothers, Ltd.
Marshall, Sons & Co., Ltd.
Ransomes, Sims & Jefferies, Ltd.
Ruston & Hornsby, Ltd.
Yates & Thom, Ltd.

Boilers, House-heating

Braby (Frederick) & Co., Ltd.
Brightside Foundry & Engineering Co., Ltd.
Glover & Mann, Ltd.
Jennings (George), Ltd.
Newton Chambers & Co., Ltd.
Wright (John) & Eagle Range, Ltd.

Boilers, Locomotive

Agricultural & General Engineers, Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Beardmore (William) & Co., Ltd.
Beyer, Peacock & Co., Ltd.
Clayton & Shuttleworth, Ltd.
Cradley Boiler Co., Ltd.
Davey, Paxman & Co., Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Garrett (Richard) & Sons, Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Kerr, Stuart & Co., Ltd.
Ransomes, Sims & Jefferies, Ltd.
Robey & Co., Ltd.
Ruston & Hornsby, Ltd.
Stephenson (Robert) & Co., Ltd.
Vulcan Foundry, Ltd.
White (J. Samuel) & Co., Ltd.

Boilers, Marine

Agricultural & General Engineers, Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Beardmore (William) & Co., Ltd.
Clarke, Chapman & Co., Ltd.
Cradley Boiler Co., Ltd.
Davey, Paxman & Co., Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
North-Eastern Marine Engineering Co., Ltd.
Palmers' Shipbuilding & Iron Co., Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.

Boilers, Portable

Agricultural & General Engineers, Ltd.
Braby (Frederick) & Co., Ltd.
Carron Company.
Clarke, Chapman & Co., Ltd.
Cradley Boiler Co., Ltd.
Davey, Paxman & Co., Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Garrett (Richard) & Sons, Ltd.
Glover & Main, Ltd.
Marshall, Sons & Co., Ltd.
Ransomes, Sims & Jefferies, Ltd.
Robey & Co., Ltd.
Ruston & Hornsby, Ltd.
Smith & Wellstood, Ltd.
Wright (John) & Eagle Range, Ltd.

Boilers, Range

Braby (Frederick) & Co., Ltd.
Glover & Main, Ltd.
Newton, Chambers & Co., Ltd.
Smith & Wellstood, Ltd.

Boilers, Vertical

Agricultural & General Engineers, Ltd.
Clarke, Chapman & Co., Ltd.
Clayton, Son & Co., Ltd.
Cradley Boiler Co., Ltd.
Davey Bros., Ltd.
Davey, Paxman & Co., Ltd.
Manlove, Alliott & Co., Ltd.
Marshall, Sons & Co., Ltd.
Ransomes, Sims & Jefferies, Ltd.
Robey & Co., Ltd.
Ruston & Hornsby, Ltd.

Boilers, Water-tube

Agricultural and General Engineers, Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Beardmore (William) & Co., Ltd.
Clarke, Chapman & Co., Ltd.
Cradley Boiler Co., Ltd.
Davey, Paxman & Co., Ltd.
Fairfield Shipbuilding & Engineering Co., Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Marshall, Sons & Co., Ltd.
North Eastern Marine Engineering Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Stirling Boiler Co., Ltd.
Thornycroft (John I.) & Co., Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.
Yarrow & Co., Ltd.

Bolsters, Brick *(See "Hand Tools, Masons.")*

Bolts & Nuts, Black Iron

Bayliss, Jones & Bayliss, Ltd.
Bullers, Ltd.
Cotterill (F. W.), Ltd.
Guest, Keen & Nettlefolds, Ltd.
MacLellan (P. & W.), Ltd.
Summerson (Thomas) & Sons, Ltd.
Todd Brothers

Bolts & Nuts, Bright Steel

Agricultural and General Engineers, Ltd.
Aircraft Manufacturing Co., Ltd.
Bayliss, Jones & Bayliss, Ltd.
Central Aircraft Co.
Cotterill (F. W.), Ltd.
Coventry Chain Co., Ltd. (The)
Davis & Timmins, Ltd.
Greener (W. W.), Ltd.
Guest, Keen & Nettlefolds, Ltd.
Hobdell, Way & Co., Ltd.
Kent (George), Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
Warne, Wright & Rowland, Ltd.
White (E. T.) & Co.

Bolt & Nut-Making Machinery

Craven Brothers (Manchester), Ltd.
Greenwood & Batley, Ltd.
Holroyd (John) & Co., Ltd.

Bone & Ivory Goods

Finnigans, Ltd.

Book-binding

Chorley & Pickersgill, Ltd.
Dean & Co. (Stockport), Ltd.
Norton & Gregory, Ltd.
Sinclair (William) & Sons (Stationers), Ltd.
Waterlow & Sons Ltd.
Witherby & Co.

Book-binding Machinery

Spicer (James) & Sons, Ltd.

Book-cases *(See "Furniture.")*

Books, Account

Boots Pure Drug Co., Ltd.
Chorley & Pickersgill, Ltd.
Dean & Co. (Stockport), Ltd.
Dickinson (John) & Co., Ltd.
Heywood (John), Ltd.
Macniven & Cameron, Ltd.
Millington & Sons, Ltd.
Norton & Gregory, Ltd.
Sinclair (William) & Sons, (Stationers), Ltd.
Spicer (James) & Sons, Ltd.
Waterlow & Sons Ltd.
Witherby & Co.

Books, Loose Leaf

Boots Pure Drug Co., Ltd.
Dickinson (John) & Co., Ltd.
Heywood (John), Ltd.
Millington & Sons, Ltd.
Norton & Gregory, Ltd.
Spicer (James) & Sons Ltd.
Waterlow & Sons Ltd.
Witherby & Co.

Boosters, Electric

(See "Electric Generators.")

Boot & Shoemakers' Tools

(See "Hand Tools.")

Boot Buttons, Eyelets & Tips, &c.

(See "Grindery.")

Boots & Shoes, Balata

Dick (R. & G.), Ltd.
Howlett & White, Ltd.
Marlow (John) & Sons, Ltd.

Boots & Shoes, Children's

Crick & Co.
Cridland & Rose
Crockett & Jones
Cook (Fredk.), Ltd.
Dawson (Joseph) & Sons, Ltd.
Dick (R. & G.), Ltd.
Howlett & White, Ltd.
Lovell (A.) & Co.
Manfield & Sons
Toone (B.) & Co., Ltd.

Boots & Shoes, Ladies'

Beal (Samuel)
Callington (G. H.) & Co., Ltd.
Church & Co.
Collier (Simon), Ltd.
Cook (Fredk.), Ltd.
Crick & Co.
Cridland & Rose
Crockett & Jones
Dawson (Joseph) & Sons, Ltd
Derham Bros., Ltd.
Dick (R. & J.), Ltd.
Ellis (B.) & Co.
Evans (Wm.)
Hanger, Chattaway & Smith
Harrods, Ltd.
Hawkins (G. T.), Ltd.
Hornby & West, Ltd.
Howlett & White, Ltd.
Lennard Bros., Ltd.
Lovell (A.) & Co.
Manfield & Sons
Mansfield Shoe Co., Ltd.
Marlow (John) & Sons, Ltd.
Padmore & Barnes, Ltd.
Roberts (T.) & Sons
Tebbutt (G. M.) & Son, Ltd.
Wright (Orson) & Son

Boots & Shoes, Men's

Callington (G. H.) & Co., Ltd.
Church & Co.
Collier (Simon), Ltd.
Cook (Fredk.), Ltd.
Crick & Co.
Cridland & Rose
Crockett & Jones
Dawson (Joseph) & Sons, Ltd.
Derham Bros., Ltd.
Dick (R. & J.), Ltd.
Finnigans, Ltd.
Harrod's, Ltd.
Hawkins (G. T.), Ltd.
Hornby & West, Ltd.
Howlett & White, Ltd.
Lovell (A.) & Co.
Manfield & Sons
Marlow (A. E.)
Marlow (John) & Sons, Ltd.
Oakeshott & Finnemore
Padmore & Barnes, Ltd.
Parker (Charles)
Tebbutt (G. M.) & Son, Ltd.

Boots & Shoes, Rubber

Greengate & Irwell Rubber Co., Ltd
Hornby & West, Ltd.
Macintosh (Chas.) & Co., Ltd.
Mansfield Shoe Co., Ltd.
North British Rubber Co., Ltd.

Boots & Shoes, Rubber Soled

Dawson (Joseph) & Sons, Ltd.
Greengate & Irwell Rubber Co., Ltd
Hornby & West, Ltd.
Howlett & White, Ltd.
Marlow (John) & Sons, Ltd.
North British Rubber Co., Ltd.
Slazenzers, Ltd.

Borax

Borax Consolidated, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Boring & Drilling Machines (Metal)

Alldays & Onions, Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Associated British Machine Tool Makers, Ltd.
Beyer, Peacock & Co., Ltd.
Carron Company.
Churchill (Charles) & Co., Ltd.
Climax Rock Drill & Engineering Works, Ltd.
Fairbairn Lawson Combe Barbour, Ltd.
Garrard & Co., Ltd.
Greenwood & Batley, Ltd.
Haighs (Oldham), Ltd.
Holroyd (John) & Co., Ltd.
Jones (A. A.) & Shipman, Ltd.
Selson Engineering Co., Ltd.
Vickers, Ltd.

Boring Machinery (Well)

(*See "Well-boring Plant."*)

Boring Machines (Mining)

Climax Rock Drill & Engineering Works, Ltd.
Hardy Patent Pick Co., Ltd.
Holman Brothers, Ltd.

Bottles & Jars, Glass

British Glass Industries, Ltd.
Explosives Trades, Ltd.
Forster's Glass Co., Ltd.
Kilner Bros., Ltd.
Lowrie (W. P.) & Co., Ltd.
United Glass Bottle Manufacturers, Ltd.

Bottles & Jars, Stoneware

(*See "Stoneware."*)

Bottle-making Machinery

Brinjes & Goodwin, Ltd.
Forster's Glass Co., Ltd.
Greenwood & Batley, Ltd.
Kilner Brothers, Ltd.

Bottle Stoppers

Acme Stopper & Box Co., Ltd.
Bullers, Ltd.
Kilner Bros., Ltd.
United Glass Bottle Manufacturers, Ltd.
Warne (William) & Co., Ltd.

Bottling Machinery & Equipment

Brinjes & Goodwin, Ltd.

Boxes, Cardboard

Aberdeen Combworks Co., Ltd
Chorley & Pickersgill, Ltd.
Cooke (Alf.), Ltd.
Explosives Trades, Ltd.
Millington & Sons, Ltd.
Setten & Durward
Tillotson & Son, Ltd.

Boxes, Metal

Acme Stopper & Box Co., Ltd.
Aircraft Manufacturing Co., Ltd.
Barringer, Wallis & Manners, Ltd.
Bentley (Albert Ed.), Ltd.
Bulpitt & Sons, Ltd.
Buncher & Hazeler, Ltd.
Crittall Manufacturing Co., Ltd
Explosives Trades, Ltd.
Glover & Main, Ltd.
Harvey (G. A.) & Co. (London), Ltd
Harris & Sheldon, Ltd.
Ludlow Bros. (1913), Ltd.
Smith (John), Ltd.
Suckling, Ltd.
Tann (John), Ltd.
Westwood (Joseph) & Co., Ltd.

Boxes, Tin Decorated

Acme Stopper & Box Co., Ltd.
Barringer, Wallis & Manners, Ltd.
Bentley (Albert Ed.), Ltd.
Explosives Trades, Ltd.
Joseph (N. C.)
Setten & Durward

Boxes, Wooden

Aircraft Manufacturing Co., Ltd.
Bath Aircraft, Ltd.
Birch (William), Ltd.
Central Aircraft Co.
Cwmfelin Steel & Tinplate Co., Ltd.
Kilner Bros., Ltd.
Lebus (Harris)
Lowrie (W. P.) & Co., Ltd.
Tucker (J. H.) & Co., Ltd.

Box-making Machinery, Cardboard

Vickers, Ltd.

Box-making Machinery, Metal

Greenwood & Batley, Ltd.

Box-making Machinery, Wooden

Haighs (Oldham), Ltd.

Bracelets (*See "Jewellery."*)

Braces, Carpenters'

Kayser, Ellison & Co., Ltd.
Mountford (Fredk.) (Birmingham), Ltd

Braces, Engineers'

Alldays & Onions, Ltd.
Guest, Keen & Nettlefolds, Ltd.
Mountford (Fredk.) (Birmingham), Ltd

Braces, Suspenders & Garters

Brooks (J. B.) & Co., Ltd.
Faire Bros. & Co., Ltd.
Newey Bros., Ltd.
Warne (William) & Co., Ltd.

Brackets, Cornice & Curtain

(*See "Brassfoundry."*)

Brackets, Shelf & Various

Carron Company.

Bradawls (*See "Awls."*)

Brads & Rivets (Boot & Shoe)

Explosives Trades, Ltd.
Stone (J.) & Co., Ltd.

Braid

Brough, Nicholson & Hall, Ltd.
Faire Bros. & Co., Ltd.
Morgan, Crossley & Co., Ltd.
Wardle & Davenport, Ltd.

Braids, Straw, Chip & Hemp

(*See "Plait."*)

Brake Linings

Bell's United Asbestos Co., Ltd.
Ferodo, Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
Turner Bros. Asbestos Co., Ltd.

Brakes, Electro Magnetic

English Electric Co., Ltd.
General Electric Co., Ltd.

Brakes, Friction

Metropolitan Carriage, Wagon & Finance Co., Ltd.

Brakes, Vacuum

Moseley (David) & Sons Ltd
Vacuum Brake Co., Ltd.
Vickers, Ltd.

Branding Irons

Sale (H. B.), Ltd.

Brass & Bronze

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Bibby (John), Sons & Co. (Garston), Ltd.
Bolton (Thomas) & Sons, Ltd.
Booth (James) & Co. (1915), Ltd.
Broughton Copper Co., Ltd.
Clifford (Charles) & Son, Ltd.
Croft (A. J.) & Co., Ltd.
Delta Metal Co., Ltd.
Earle Bourne & Co., Ltd.
Explosives Trades, Ltd.
Harrison & Co.
McKecknie Bros., Ltd.
Phosphor Bronze Co., Ltd.
Singer (J. W.) & Sons, Ltd.
Stone (J.) & Co., Ltd.
Tayler (D. F.) & Co., Ltd.
United Brassfounders & Engineers, Ltd.

Brass-finishing Machines

Associated British Machine Tool Makers, Ltd.
Canning (W.) & Co.
Holroyd (John) & Co., Ltd.
Selson Engineering Co., Ltd.

Brassfoundry, Builders', Cabinet & Furnishing

Booth (James) & Co. (1915), Ltd.
Croft (A. J.) & Co., Ltd.
Explosives Trades, Ltd.
Harrison & Co.
Jennings (George), Ltd.

Brassfoundry, Coach & Motor Car

Aircraft Manufacturing Co., Ltd.
Benton & Stone, Ltd.
Booth (James) & Co. (1915), Ltd.
Croft (A. J.) & Co., Ltd.
Explosives Trades, Ltd.
Harrison & Co.
White (E. T.) & Co.

Brassfoundry, Engineers'

Aircraft Manufacturing Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Ashwell & Nesbit, Ltd.
Benton & Stone, Ltd.
Beyer, Peacock & Co., Ltd.
Blakeborough (J.) & Sons, Ltd.
Booth (James) & Co. (1913), Ltd.
Brinjes & Goodwin, Ltd.
Carron Company.
Clifford (Charles) & Son, Ltd.
Croft (A. J.) & Co., Ltd.
Dixon (S.) & Son, Ltd.
Explosives Trades, Ltd.
Glover & Main, Ltd.
Head, Wrightson & Co., Ltd.
Holman Bros., Ltd.
Jennings (George), Ltd.
Joseph (N. C.).
Laing (Sir James) & Sons, Ltd.
Mountford (Frederick) (Birmingham), Ltd.
North Eastern Marine Engineering Co., Ltd.
Parsons (C A.) & Co., Ltd.
Plowright Bros., Ltd.
Singer (J. W.) & Sons, Ltd.
Stone (J.) & Co., Ltd.
United Brassfounders & Engineers, Ltd.
Vickers, Ltd.
Yates & Thom, Ltd.

Brassfoundry, Gas, Water & Steam Fittings

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Ashwell & Nesbit, Ltd.
Blakeborough (J.) & Sons, Ltd.
Booth (James) & Co. (1915), Ltd.
Croft (A. J.) & Co., Ltd.
Dixon (J.) & Sons, Ltd.
Explosives Trades, Ltd.
Hopkinson (J.) & Co.
Jennings (George), Ltd.
Kent (George), Ltd.
Laing (Sir James) & Sons, Ltd.
North Eastern Marine Engineering Co., Ltd.
Russell (John) & Co., Ltd.
Stone (J.) & Co., Ltd.
United Brassfounders & Engineers, Ltd.

Brassfoundry, Horticultural

Benton & Stone, Ltd.
Booth (James) & Co. (1915), Ltd.
United Brassfounders & Engineers, Ltd.

Brassfoundry, Railway & Ship

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Blakeborough (J.) & Sons, Ltd.
Booth (James) & Co. (1915), Ltd.
Dixon (J.) & Sons, Ltd.
Explosives Trades, Ltd.
Head, Wrightson & Co., Ltd.
Laing (Sir James) & Sons, Ltd.
Singer (J. W.) & Sons, Ltd.
Stone (J.) & Co., Ltd.
United Brassfounders & Engineers, Ltd.
Vickers Ltd.

Brass Rods, Sheets, &c.

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Birmingham Battery & Metal Co., Ltd.
Bolton (Thomas) & Sons, Ltd.
Booth (James) & Co. (1915), Ltd.
British Insulated & Helsby Cables, Ltd.
Broughton Copper Co., Ltd.
Clifford (Charles) & Son, Ltd.
Croft (A. J.) & Co., Ltd.
Davis & Timmins, Ltd.
Delta Metal Co., Ltd.
Explosives Trades, Ltd.
McKechnie Bros., Ltd.
Muntz's Metal Co., Ltd.
Stone (J.) & Co., Ltd.
Tayler (D. F.) & Co., Ltd.
United Brassfounders & Engineers, Ltd.
Vivian (H. H.) & Co., Ltd.

Brasswork, Ornamental

Booth (James) & Co. (1915), Ltd.
Harris & Sheldon, Ltd.
Sale (H. B.), Ltd.
Singer (J. W.) & Sons, Ltd.

Brazing Hearths

Alldays & Onions, Ltd.
Wright (John) & Eagle Range, Ltd

Brazing Lamps (*See "Lamps, Blow."*)

Bread-slicing Machines

Kent (George), Ltd.
Momtford (Fredk.) (Birmingham), Ltd.

Breakers, Stone & Ore

(*See "Mining Machinery."*)

Brewers' Chemicals

Boake (A.) Roberts & Co., Ltd
Duckworth & Co.
May & Baker, Ltd.
United Alkali Co., Ltd.

Brewers' Machinery & Equipment

Boby (Robert), Ltd.
Piggott (Thomas) & Co., Ltd.

Brick & Tile Machinery

Accles & Pollock, Ltd.
Brightside Foundry & Engineering Co., Ltd.
Brinjes & Goodwin, Ltd.
Vickers, Ltd.
Wild (M. B.) & Co., Ltd.

Bricks

Binnington Main Coal Co., Ltd.
Bolckow, Vaughan & Co., Ltd.
Bradley & Foster, Ltd.
Brymbo Steel Co., Ltd.
Clay Cross Co., Ltd.
Consett Iron Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Pease & Partners, Ltd.
Redbourn Hill Iron & Coal Co., Ltd.
Tredegar Iron & Coal Co., Ltd.
Vickers, Ltd.

Bricks, Fire, &c.

(*See "Refractory Material."*)

Bridges, Iron & Steel

Arrol (Sir William) & Co., Ltd.
Armstrong & Main, Ltd.
Bain (William) & Co., Ltd.
Braby (Frederick) & Co., Ltd.
Braithwaite & Co.
Brandon Bridge-Building Co., Ltd.
Bullivant & Co., Ltd.
Cleveland Bridge & Engineering Co., Ltd.
Dawnay (Archibald D.) & Sons, Ltd.
Dorman, Long & Co., Ltd.
Findlay (Alex.) & Co., Ltd.
Head, Wrightson & Co., Ltd.
Horsehay & Co., Ltd.
Horseley Bridge & Engineering Co., Ltd
Keay (E., C. & J.), Ltd.
Lanark hire Steel Co., Ltd.
Lysaght (John), Ltd.
MacLellan (P. & W.), Ltd.
Markham & Co., Ltd.
Norton (Francis) & Co., Ltd.
Motherwell Bridge Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Whessoe Foundry Co., Ltd.
Westwood (Joseph) & Co., Ltd.
Wood (Edward) & Co., Ltd.

Bridges, Suspension

Armstrongs & Main, Ltd.
Arrol (Sir William) & Co., Ltd.
Bain (William) & Co., Ltd.
Braithwaite & Co.
Cleveland Bridge Engineering Co., Ltd.
Cradock (George) & Co., Ltd.

Bridges, Suspension—*continued.*

Dorman, Long & Co., Ltd.
Findlay (Alex.) & Co., Ltd.
Head, Wrightson & Co., Ltd.
Hill (J. & P.).
Horseley Bridge & Engineering Co., Ltd.
MacLellan (P. & W.), Ltd.
Metropolitan Carriage, Wagon & Finance Co., Ltd.
Orr, Watt & Co., Ltd.
Vickers, Ltd.
Wilkins' Wire Rope Co., Ltd.

Briquettes

Baird (William) & Co., Ltd.
Batchelor, Robinson & Co., Ltd.
Clay, Cross & Co., Ltd.
Dinnington Main Coal Co., Ltd.
Graigola Merthyr Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Pease & Partners, Ltd.
Phoenix Patent Fuel Co., Ltd.

Briquette Machinery

Berry (Henry) & Co., Ltd.
Brightside Foundry & Engineering Co., Ltd.
Hollings & Guest, Ltd.

Britannia Metal Ware

Walker & Hall, Ltd.

Broaches, Engineers'

Armstrong (Sir W. G.), Whitworth & Co., Ltd
Balfour (Arthur) & Co., Ltd.
Holroyd (John) & Co., Ltd.
Kayser, Ellison & Co., Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
Sanderson Bros. & Newbould, Ltd.
Vickers, Ltd.

Broaching Machines

Associated British Machine Tool Makers, Ltd.
Bridge (David) & Co., Ltd.
Explosives Trades, Ltd.
Greenwood & Batley, Ltd.
Haighs (Oldham), Ltd.
Hollings & Guest, Ltd.
Holroyd (John) & Co., Ltd.
Vickers, Ltd.

Bromide Preparations

British Drug Houses, Ltd.
Boots Pure Drug Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Bronze, Phosphor

(*See "Brass and Bronze."*)

Bronze Powder

Explosives Trades, Ltd.
Metal Powders, Ltd.
Vickers, Ltd.

Brushes, Carbon Electric

(*See "Carbon Brushes, Electric."*)

Brushes, Wire (Boiler Tube & Foundry)

Canning (W.) & Co.
Greening (N.) & Sons, Ltd.

Brush-makers' Materials (Bristles, Brass Fibre, &c.)

Butler (William) & Co. (Bristol), Ltd.

Brush-making Machinery

Aublet (Harry) & Co., Ltd.
Haighs (Oldham), Ltd.

Brush-ware & Brooms

Finnigans, Ltd.

Buckets, Canvas

Piggott Bros. & Co., Ltd.
Stott (James), Ltd.

Buckets, Elevator & Conveying

Allen (Edgar) & Co., Ltd.
Berry (Henry) & Co., Ltd.
Braby (Frederick) & Co., Ltd.
Braime (T. F.) & Co., Ltd.
Greening (N.) & Sons, Ltd.
Hadfields, Ltd.
Hardy Patent Pick Co., Ltd.
Harvey (G. A.) & Co. (London), Ltd.
Head, Wrightson & Co., Ltd.
Holman Bros., Ltd.
Marsden (H. R.), Ltd.
Newton, Chambers & Co., Ltd.
Orr, Watt & Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Westwood (Joseph) & Co., Ltd.
Wild (M. B.) & Co., Ltd.

Buckets, Galvanized Iron

(*See "Galvanized Iron Goods."*)

Buckets, Rubber

Cow (P. B.) & Co., Ltd.
Greengate & Irwell Rubber Co., Ltd.
Ludlow Bros. (1913), Ltd.
Macintosh (Chas.) & Co., Ltd.
North British Rubber Co., Ltd.
Piggott Bros. & Co., Ltd.

Buckets, Well & Foundry

Braby (Frederick) & Co., Ltd.
Ludlow Bros. (1913), Ltd.
National Galvanisers, Ltd.

Buckles

Buttons, Ltd.
Edmonds (George), Ltd.
Harrison & Co.
Jennens & Co., Ltd.
Smith (John), Ltd.

Buffer Stops

(*See "Railway Buffers and Stops."*)

Builders' Hardware

(*See "Brassfoundry, Builders'," and "Ironmongery."*)

Buildings, Iron & Steel

Armstrongs & Main, Ltd.
Arrol (Sir William) & Co., Ltd.
Bain (William) & Co., Ltd.
Baldwins, Ltd.
Braby (Frederick) & Co., Ltd.
Braithwaite & Co.
Clayton, Son & Co., Ltd.
Cleveland Bridge & Engineering Co., Ltd.
Dawnay (Archibald D.) & Sons, Ltd.

Buildings, Iron & Steel—*continued.*

Dorman, Long & Co., Ltd.
Findlay (Alex.) & Co., Ltd.
Head, Wrightson & Co., Ltd.
Horsehay Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Keay (E., C. & J.), Ltd.
Lanarkshire Steel Co., Ltd.
Lysaght (John), Ltd.
MacLellan (P. & W.), Ltd.
Markham & Co., Ltd.
Measures Bros. (1911), Ltd.
Monk Bridge, Iron & Steel Co., Ltd.
Morton (Francis) & Co., Ltd.
Motherwell Bridge Co., Ltd.
Newton, Chambers & Co., Ltd.
Orr, Watt & Co., Ltd.
Patent Shaft and Axletree Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Plowright Bros., Ltd.
Redpath, Brown & Co., Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Westwood (Joseph) & Co., Ltd.
Wood (Edward) & Co., Ltd.

Buildings, Portable

Bain (William) & Co., Ltd.
Braby (Frederick) & Co., Ltd.
Braithwaite & Co.
Dawnay (Archibald D.) & Sons, Ltd.
Humphreys, Ltd.
Morton (Francis) & Co., Ltd.
Piggott Bros. & Co., Ltd.
Wood (Edward) & Co., Ltd.

Bulbs, Rubber, for Motor Horns, &c.

(*See "Rubber Goods."*)

Bungborers (*See "Bits."*)

Bunkers, Coal, Ore, &c.

Arrol (Sir William) & Co., Ltd.
Braby (Frederick) & Co., Ltd.
Clayton, Son & Co., Ltd.
Cleveland Bridge & Engineering Co., Ltd
Consett Iron Co., Ltd.
Head, Wrightson & Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Markham & Co., Ltd.
Mechans, Ltd.
Morton (Francis) & Co., Ltd.
Newton, Chambers & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Plowright Bros., Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Westwood (Joseph) & Co., Ltd.
Wild (M. B.) & Co., Ltd.

Buoys

Bullivant & Co., Ltd.
Chance Bros. & Co., Ltd.
Head, Wrightson & Co., Ltd.
Holman Bros., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Mechans, Ltd.
Piggott (Thomas) & Co., Ltd.
Sankey (Joseph) & Sons, Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Telegraph Construction & Maintenance Co., Ltd.

Burners, Gas & Acetylene (*See "Gas, etc."*)

Burners, Lamp (*See "Lamp Burners."*)

Burnishers, Oval

(*See "Hand Tools, Engravers."*)

Butter-making Machinery

(*See "Dairy Machinery."*)

Butter Substitutes

British Oil & Cake Mills, Ltd.
Globe Refining Co., Ltd.
May & Baker, Ltd.

Butt Hinges (*See "Brassfoundry" and "Ironmongery, Builders'."*)

Button Shanks & Fasteners

Harrison & Co.
Newey Bros., Ltd.
Smith (John), Ltd.
Tayler (D. F.) & Co., Ltd.

Buttons, Bone, Horn, Ivory & Pearl

Buttons, Ltd.

Buttons, Linen & Silk

Brown (John S.) & Sons, Ltd.
Buttons, Ltd.

Buttons, Metal

Buttons, Ltd.
Jennens & Co., Ltd.
Sale (H. B.), Ltd.
Smith (John), Ltd.

Butyl Acetate

Boake (A.), Roberts & Co., Ltd.
Bush (W. J.) & Co., Ltd.
May & Baker, Ltd.

C

Cabinets, Oil (*See "Filters, Oil."*)

Cabin Hooks (*See "Brassfoundry."*)

Cables (Chain) (*See "Chain Cables."*)

Cables, Electric, & Cable Accessories

Bolton (Thomas) & Sons, Ltd.
British Insulated & Helsby Cables, Ltd.
Callender's Cable & Construction Co., Ltd.
Edison Swan Electric Co., Ltd.
General Electric Co., Ltd.
Glover (W. T.) & Co., Ltd.
Greengate & Irwell Rubber Co., Ltd.
Henley's (W. T.) Telegraph Works Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Johnson & Phillips, Ltd.
Macintosh (Chas.) & Co., Ltd.
Smith (S.) & Sons (Motor Accessories), Ltd.
Telegraph Construction & Maintenance Co., Ltd.
Tucker (J. H.) & Co., Ltd.
Vickers, Ltd.
Yorkshire Cable Co., Ltd.

Cables, Haulage (*See "Ropes, Steel."*)

Cables for Ships, Steel Wire

(*See "Ships' Hawsers, Steel Wire."*)

Cable-laying Machinery

Henley's (W. T.) Telegraph Works Co., Ltd
Johnson & Phillips, Ltd.
Telegraph Construction & Maintenance Co., Ltd.
Vickers, Ltd.

Cable-laying Ships

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Fairfield Shipbuilding & Engineering Co., Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Laing (Sir James) & Sons, Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Thornycroft (John I.) & Co', Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.

Cable-making Machinery

Bridge (David) & Co., Ltd.
Glover (W. T.) & Co., Ltd.
Johnson & Phillips, Ltd.
Monometer Manufacturing Co. (1918), Ltd.
Telegraph Construction & Maintenance Co.. Ltd.
Vickers, Ltd.

Cableways & Runways

Agricultural & General Engineers, Ltd.
Alldays & Onions, Ltd.
Bullivant & Co., Ltd.
Cradock (George) & Co., Ltd.
Holt & Willetts.
Ropeways, Ltd.
Smith (Thomas & William), Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Wild (M. B.) & Co., Ltd.
Wright (John & Edwin), Ltd.

Cadmium

Chance & Hunt, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Cadmium Salts

British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd
Howards & Sons, Ltd.
Johnson, Matthey & Co., Ltd.
May & Baker, Ltd.

Caffeine & Salts

Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Cages, Mining

(See "Mining Machinery.")

Caissons

Armstrongs & Main, Ltd.
Arrol (Sir William) & Co., Ltd.
Braithwaite & Co
Head, Wrightson & Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
MacLellan (P. & W.), Ltd.
Morton (Francis) & Co., Ltd.
Motherwell Bridge Co., Ltd.
Orr, Watt & Co., Ltd.
Palmer's Shipbuilding & Iron Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Vickers, Ltd.
Westwood (Joseph) & Co., Ltd

Cake, Linseed, Cottonseed, etc.

(See "Meal, Oil Cake, etc.)

Calciners

Holman Bros., Ltd.
Newton, Chambers & Co., Ltd.
Piggott (Thomas) & Co., Ltd.

Calcium Acetate

Boake (A.), Roberts & Co., Ltd
British Drug Houses, Ltd.
May & Baker, Ltd.

Calcium Acetylsalicylate

British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Calcium Bisulphite

Boake (A.), Roberts & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Calcium Carbide

Acetylene Corporation of Great Britain, Ltd.
Alby United Carbide Factories, Ltd.
British Cellulose & Chemical Manufacturing Co.,Ltd.
Evans, Sons, Lescher & Webb, Ltd.
United Alkali Co., Ltd.

Calcium Carbonate

British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Calcium Chloride

Boake (A.), Roberts & Co., Ltd.
British Drug Houses, Ltd.
Brunner, Mond & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Calcium Nitrate

Salt Union, Ltd.

Calcium Phosphate

Boake (A.), Roberts & Co., Ltd.
British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Calculators

Halden (J.) & Co., Ltd.

Calendars, Date

Chorley & Pickersgill, Ltd.
Cooke (Alf.), Ltd.
Finnigan's, Ltd.
Heywood (John), Ltd.
Setten & Durward.
Tillotson & Son, Ltd.
Waterlow & Sons Ltd.

Calico *(See "Cotton.")*

Calico Printing Machinery

(See "Textile Machinery.")

Calipers

Aircraft Manufacturing Co., Ltd.
Hooker (Peter), Ltd.

Calomel

Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Calx, Sulphurate

Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Canned Goods

(See "Foods, Prepared.")

Cameras

(See "Photographic Apparatus and Supplies.")

Camphor

Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
International Paint & Compositions Co., Ltd.
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Camphor Substitutes

Boake (A.), Roberts & Co., Ltd.
International Paint & Compositions Co., Ltd.
May & Baker, Ltd.

Camphor, Synthetic

International Paint & Compositions Co., Ltd.
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Candied Peel & Crystallized Fruits

Batger & Co.
Crosse & Blackwell (Mfg. Co.), Ltd.
Keiller (James) & Son, Ltd.
Maconochie Bros., Ltd.
Pascall (James), Ltd.
Simpson (William) (Manchester), Ltd.

Candles

Anglo-Persian Oil Co., Ltd.
Asiatic Petroleum Co., Ltd.
Explosives Trades, Ltd.

Candlesticks, Brass, &c.

(See "Brassfoundry, Furniture," and "Silverware.")

Candlesticks, Tin

(See "Hollow-ware," and "Tinware.")

Canoes

Mechans, Ltd.
Short Bros. (Rochester & Bedford), Ltd.
White (J. Samuel) & Co., Ltd.

Cans *(See "Drums, Kegs and Cans.")*

Cans, Oil *(See "Oilers.")*

Cans, Tin *(See "Tinware.")*

Canvas, Burlap & Sail Cloth

Boath (John), Junr. & Co., Ltd.
Bright (John) & Bros., Ltd.
Horrockses, Crewdson & Co., Ltd.
Hoyle (Joshua) & Sons, Ltd.
Mitchell (Andrew) & Co., Ltd.
Piggott Bros. & Co., Ltd.
Scott (James) & Sons, Ltd.
Stott (James), Ltd.
Whitehead (David) & Co., Ltd.

Caps, Men's, Cloth

Longbottom (H.) & Co., Ltd.

Capsicin

British Drug Houses, Ltd.
Duckworth & Co.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Capstans, Electric

Armstrongs & Main, Ltd.
Arrol (Sir William) & Co., Ltd.
Clarke, Chapman & Co., Ltd.
Craven Bros. (Manchester), Ltd.
English Electric Co., Ltd.
Fielding & Platt, Ltd.
General Electric Co., Ltd.
Greenwood & Batley, Ltd.
Holman Bros., Ltd.
Holroyd (John) & Co., Ltd.
Holt & Willetts.
Ransomes & Rapier, Ltd.
Sandycroft, Ltd.
Stothert & Pitt, Ltd.

Capstans, Hand

Clarke, Chapman & Co., Ltd.
Holt & Willetts.

Capstans, Hydraulic

Armstrongs & Main, Ltd.
Arrol (Sir William) & Co., Ltd.
Berry (Henry) & Co., Ltd.
Clarke, Chapman & Co., Ltd.
Fielding & Platt, Ltd.
Glenfield & Kennedy, Ltd
Hollings & Guest, Ltd.
Holroyd (John) & Co., Ltd.
Sandycroft, Ltd.
Vickers, Ltd.

Capstans, Steam

Clarke, Chapman & Co., Ltd.
Fielding & Platt, Ltd.
Holman Bros., Ltd.
Holroyd (John) & Co., Ltd.
Sandycroft, Ltd.

Capsules, Bottle (Metallic)

Acme Stopper & Box Co., Ltd.
Betts & Co., Ltd.

Capsules, Medicated

Boots Pure Drug Co., Ltd.
British Drug Houses, Ltd.
Maw (S.), Son & Sons, Ltd.

Carbazole

Burt, Boulton & Haywood, Ltd.

Carbide *(See "Calcium Carbide.")*

Carbon, Bisulphide

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Carbon Brushes, Electric

English Electric Co., Ltd.
Morgan Crucible Co., Ltd.
Sandycroft, Ltd.

Carbon, Tetrachloride

May & Baker, Ltd.

Carbonic Acid Gas

Calder (James) & Co., Ltd.
Mann, Crossman & Paulin, Ltd.

Carbons for Arc Lamps

(See Electrical Accessories.")

Carborundum *(See " Abrasives.")*

Carburettors

B.S.A. Cycles, Ltd.
Bulpitt & Sons, Ltd
Pugh (Charles H.), Ltd.
Smith (S.) & Sons (Motor Accessories), Ltd.
United Brassfounders & Engineers, Ltd
White (E. T.) & Co.
White & Poppe, Ltd.

Cardboard *(See " Board, etc.")*

Cards, Playing

Finnigans, Ltd.

Cargo Handling Plant

See " Loading and Unloading Plant.")

Cargo Vessels

Beardmore (William) & Co., Ltd.
Brown (John) & Co., Ltd.
Fairfield Shipbuilding & Engineering Co., Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Hill (Charles) & Sons, Ltd.
Hill (J. & P.).
Laing (Sir James) & Sons, Ltd.
Palmers' Shipbuilding & Iron Co., Ltd.
Thompson (Joseph L.) & Sons, Ltd.
Thornycroft (John I.) & Co., Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.
Yarrow & Co., Ltd.

Carpets

Bright (John) & Bros., Ltd.
Firth (T. F.) & Sons, Ltd.
Stoddard (A. F.) & Co., Ltd.

Carpet Cleaners (Vacuum)

(See " Vacuum Cleaning Apparatus.")

Carriage & Coach Furniture & Fittings

(See under " Coach.")

Carriages, Carts, Wagons, &c.

Bristol Wagon & Carriage Works Co., Ltd.
Martinsyde, Ltd.
Remer (John) & Co., Ltd.

Carriage Ironwork *(See " Coach," etc.)*

Carriages & Wagons, Railway

(See " Railway Carriages and Wagons.")

Carriers, Lathe

Associated British Machine Tool Makers, Ltd.
Cotterill (F. W.), Ltd.

Cars, Electric, Tram & Cable

Bristol Wagon & Carriage Works Co., Ltd.
Brush Electrical Engineering Co., Ltd.
English Electric Co., Ltd.
Hurst, Nelson & Co., Ltd.
Short Bros. (Rochester & Bedford), Ltd.

Cart Gear

Brockhouse (J.) & Co , Ltd.

Cartons *(See " Paper Bags, etc.")*

Cartridge Cases

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Explosives Trades, Ltd.
Greenwood & Batley, Ltd.
Vickers, Ltd.
Westley, Richards & Co., Ltd.
Wolseley Motors, Ltd.

Cartridge Cases, Brass

Booth (James) & Co. (1915), Ltd.
Explosives Trades, Ltd.
Greenwood & Batley, Ltd.
Vickers, Ltd.

Cartridge Machinery

Associated British Machine Tool Makers, Ltd.
Explosives Trades, Ltd.
Greenwood & Batley, Ltd.
Holroyd (John) & Co., Ltd.

Cartridges *(See " Ammunition.")*

Carts (Horse & Hand)

(See " Carriages, etc.")

Carvers *(See " Cutlery.")*

Carving Tools *(See Hand Tools, Carving ")*

Case-hardening Compounds

Alldays & Onions, Ltd.
Braime (T. F.) & Co., Ltd.
Canning (W.) & Co.
Mather (W. T.), Ltd.
Sanderson Bros. & Newbould, Ltd.

Casements *(See " Sashes and Casements ")*

Case Openers

Mountford (Fredk.) (Birmingham), Ltd.

Cases, Cigar & Cigarette

Buncher & Hazeler, Ltd.
Dean & Co. (Stockport), Ltd.
Dunhill (Alfred).
Finnigans, Ltd.

Cases, Leather, Various

Brooks (J. B.) & Co., Ltd.
Dean & Co. (Stockport), Ltd.
Dickinson (John) & Co., Ltd.
Finnigans, Ltd.
Greener (W.W.)., Ltd.
Heywood (John), Ltd.
Norton & Gregory, Ltd.
Westley, Richards & Co., Ltd.

Cashmere, Tops & Noils

Dawson (Joseph).

Cask-making Machinery

(See " Barrel-making Machinery.")

Cassada Pans

Piggott (Thomas) & Co., Ltd.
Sankey (Joseph) & Sons, Ltd.

Casting Ladles, Pots & Moulds

(See "Foundry Equipment.")

Castings, Aluminium

Aircraft Manufacturing Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Ashwell & Nesbit, Ltd.
Birmingham Aluminium Casting (1903) Co., Ltd.
Croft (A. J.) & Co., Ltd.
Du Cros (W. & G.), Ltd.
English Electric Co., Ltd.
Explosives Trades, Ltd.
Holman Bros., Ltd.
Joseph (N. C.).
Muntz's Metal Co., Ltd.
Stone (J.) & Co., Ltd.
United Brassfounders & Engineers, Ltd.
White (E. T.) & Co.

Castings, Brass, Bronze, Copper & Gun-metal

Aircraft Manufacturing Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Ashwell & Nesbit, Ltd.
Bayliss (William), Ltd.
Beyer, Peacock & Co., Ltd.
Blakeborough (J.) & Sons, Ltd.
Bolckow, Vaughan & Co., Ltd.
Brinjes & Goodwin, Ltd.
Brockhouse (J.) & Co., Ltd.
Clifford (Charles) & Son, Ltd.
Cooke (T.) & Sons, Ltd.
Croft (A. J.) & Co., Ltd.
Cwmfelin Steel & Tinplate Co., Ltd.
Delta Metal Co., Ltd.
Dixon (S.) & Sons, Ltd.
Du Cros (W. & G.), Ltd.
Explosives Trades, Ltd.
Glover & Main, Ltd.
Greenwood & Batley, Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd
Head, Wrightson & Co., Ltd.
Holman Bros., Ltd.
Holroyd (John) & Co., Ltd.
Jennings (George), Ltd.
Kent (George), Ltd.
Laing (Sir James) & Sons, Ltd.
Manlove, Alliott & Co., Ltd.
Muntz's Metal Co., Ltd.
North Eastern Marine Engineering Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Parsons (C. A.) & Co., Ltd.
Patent Axle Box & Foundry Co., Ltd.
Plowright Bros., Ltd.
Pulsometer Engineering Co., Ltd.
Richards (J. H.) & Co., Ltd.
Sale (H. B.), Ltd.
Singer (J. W.) & Sons, Ltd.
Stephenson (Robert) & Co., Ltd.
Stone (J.) & Co., Ltd.
Thomas (Richard) & Co., Ltd.
United Brassfounders & Engineers, Ltd.
Vickers, Ltd.
White (E. T.) & Co.
Wigglesworth (Frank) & Co., Ltd.

Castings, Builders' & Sanitary

Ashwell & Nesbit, Ltd.
Bayliss, Jones & Bayliss, Ltd.
Carron Company.
Derwent Foundry Co. (1920), Ltd.
Jennings (George), Ltd.
Newton, Chambers & Co., Ltd.
Smith & Wellstood, Ltd.
Stone (J.) & Co., Ltd.

Castings, Die *(See "Die Castings.")*

Castings, Iron

Accles & Pollock, Ltd.
Aircraft Manufacturing Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Ashwell & Nesbit, Ltd.
Bayliss, Jones & Bayliss, Ltd.
Beyer, Peacock & Co., Ltd.
Birtley Iron Co.
Bradley & Foster, Ltd.
Brightside Foundry & Engineering Co., Ltd.
Brinjes & Goodwin, Ltd.
Brockhouse (J.) & Co., Ltd.
Bullers, Ltd.
Carron Company.
Clay, Cross Co., Ltd.
Clayton & Shuttleworth, Ltd.
Cochrane & Co. (Woodside), Ltd.
Consolidated Signal Co., Ltd.
Craven Bros. (Manchester), Ltd.
Cwmfelin Steel & Tinplate Co., Ltd.
Derwent Foundry Co. (1920), Ltd.
Du Cros (W. & G.), Ltd.
Ebbw Vale Steel Iron & Coal Co., Ltd.
Explosives Trades, Ltd.
Fox (Samuel) & Co., Ltd.
Glover & Main, Ltd.
Hadfields, Ltd.
Hardy Patent Pick Co., Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Head, Wrightson & Co., Ltd.
Heath (Robert) & Low Moor, Ltd.
Holman Bros., Ltd.
Holmes (W. C.) & Co., Ltd.
Holroyd (John) & Co., Ltd.
Holt & Willetts.
Horsehay Co., Ltd.
Horseley Bridge & Engineering Co , Ltd.
Hurst, Nelson & Co., Ltd.
Keay (E., C. & J.), Ltd.
Kent (George), Ltd.
Laing (Sir James) & Sons, Ltd.
Manlove, Alliott & Co., Ltd.
Markham & Co., Ltd.
Matthews & Yates, Ltd.
Measures Bros. (1911), Ltd.
Monometer Manufacturing Co. (1918), Ltd.
Morton (Francis) & Co., Ltd.
Newton, Chambers & Co., Ltd.
North Eastern Marine Engineering Co., Ltd.
North Lonsdale Iron & Steel Co., Ltd.
Palmers' Shipbuilding & Iron Co., Ltd.
Patent Axle Box & Foundry Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Pease & Partners, Ltd.
Piggott (Thomas) & Co., Ltd.
Plowright Bros., Ltd.
Ransomes & Rapier, Ltd.
Richmond Gas Stove & Meter Co., Ltd.
Roberts (Charles) & Co., Ltd.
Rose, Downs & Thompson, Ltd.

Castings, Iron—*continued.*
Sandycroft, Ltd.
Sheepbridge Coal & Iron Co., Ltd
Smith & Wellstood, Ltd.
Stanton Ironworks Co., Ltd.
Staveley Coal & Iron Co., Ltd.
Stone (J.) & Co., Ltd.
Summerson (Thomas) & Sons, Ltd.
Thomas (Richard) & Co., Ltd.
Vickers, Ltd.
Whessoe Foundry Co., Ltd.
White (E. T.) & Co.
Wild (M. B.) & Co., Ltd.

Castings, Magnet
Allen (Edgar) & Co. Ltd.
Brown (John) & Co., Ltd.
Darlington Forge, Ltd. (The).
Derwent Foundry Co. (1920), Ltd.
Hadfields, Ltd.
Lloyd (F. H.) & Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Summerson (Thomas) & Sons, Ltd.
Vickers, Ltd.

Castings, Malleable Iron
Agricultural & General Engineers, Ltd.
Accles & Pollock, Ltd.
Ashwell & Nesbit, Ltd.
Bayliss (William), Ltd.
Brockhouse (J.) & Co., Ltd.
Bullers, Ltd.
Hadfields, Ltd.
Hardy Patent Pick Co., Ltd.
Holt & Willetts.
Ley's Malleable Castings Co., Ltd.
Patent Axle Box & Foundry Co., Ltd.

Castings, Phosphor Bronze
Aircraft Manufacturing Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd
Ashwell & Nesbit, Ltd.
Blakeborough (J.) & Sons, Ltd.
Brockhouse (J.) & Co., Ltd.
Clifford (Charles) & Son, Ltd.
Delta Metal Co., Ltd.
Dixon (J.) & Sons, Ltd.
Du Cros (W. & G.), Ltd.
Laing (Sir James) & Sons, Ltd.
Manlove, Alliott & Co., Ltd.
Palmers' Shipbuilding & Iron Co., Ltd.
Spicer (J. W.) & Sons, Ltd.
Stone (J.) & Co., Ltd.
United Brassfounders & Engineers, Ltd.
Vickers, Ltd.
White (E. T.) & Co.

Castings, Steel
Allen (Edgar) & Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Ashwell & Nesbit, Ltd.
Barrow Hematite Steel Co., Ltd.
Beardmore (William) & Co., Ltd.
Beyer, Peacock & Co., Ltd.
Bolckow, Vaughan & Co., Ltd.
Brockhouse (J.) & Co., Ltd.
Brown (John) & Co., Ltd.
Clayton & Shuttleworth, Ltd.
Cwmfelin Steel & Tinplate Co., Ltd.
Darlington Forge, Ltd.
Firth (Thos.) & Sons, Ltd.
Hadfields, Ltd.
Hardy Patent Pick Co., Ltd.
Head, Wrightson & Co., Ltd.
Holman, Bros., Ltd.
Jessop (William) & Sons, Ltd.
Lloyd (F. H.) & Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Partington Steel & Iron Co., Ltd.
Spencer (John) & Sons, Ltd.
Stewarts & Lloyds, Ltd.
Summerson (Thomas) & Sons, Ltd.
Thomas (Richard) & Co., Ltd.
Thwaites Bros., Ltd.
Vickers, Ltd.
White (E. T.) & Co.

Castings, Steel, Manganese
Allen (Edgar) & Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd
Beyer, Peacock & Co., Ltd.
Brown (John) & Co., Ltd.
Darlington Forge, Ltd. (The).
Hadfields, Ltd.
Holman Bros., Ltd.
Osborn (Samuel) & Co., Ltd.

Castors, Furniture
Harrison & Co.

Catches, Show-case, Wardrobe, &c.
Erebus Manufacturing Co., Ltd.
Harris & Sheldon, Ltd.

Cattle Cake & Meal, &c.
Bibby (J.) & Sons, Ltd.
British Oil & Cake Mills, Ltd.
Crosfield (Joseph) & Sons, Ltd.
Cross (Alexander) & Sons, Ltd.
Loders & Nucoline, Ltd.
Silcock (R.) & Sons, Ltd.
Spillers Milling & Associated Industries, Ltd
Vernon (W.) & Sons.

Cattle-holders (*See "Pliers."*)

Cattle-killers
Greener (W. W.).
Webley & Scott, Ltd.

Caulking Tools (*See Hand Tools, Plumbers."*)

Caustic Soda (*See "Soda, Caustic."*)

Celluloid Goods
Chilworth Gunpowder Co., Ltd.
Chloride Electrical Storage Co., Ltd.
North British Rubber Co., Ltd.

Celluloid Machinery
Berry (Henry) & Co., Ltd.
Bridge (David) & Co., Ltd.
Brinjes & Goodwin, Ltd.
Hollings & Guest, Ltd.

Celluloid, Non-Inflammable
British Cellulose & Chemical Manufacturing Co., Ltd.
Dover, Ltd.
Explosives Trades, Ltd.
May & Baker, Ltd.

Cellulose Acetate
British Cellulose & Chemical Manufacturing Co. Ltd.
Explosives Trades, Ltd.
May & Baker, Ltd.

Cement-making Machinery
(*See "Concrete, etc."*)

Cement, Portland

Associated Portland Cement Manufacturers, Ltd.
British Portland Cement Manufacturers, Ltd.
Crosfield (Joseph) & Sons, Ltd.
Ship Canal Portland Cement Manufacturers, Ltd.

Cement-Testing Machines

Avery (W. & T.), Ltd.

Centrifugals for Sugar

(See "Sugar Machinery.")

Centering Machines

Armstrong (Sir W. G.), Whitworth & Co., Ltd
Associated British Machine Tool Makers, Ltd.
Churchill (Charles) & Co., Ltd.
Craven Bros. (Manchester), Ltd.
Haighs (Oldham), Ltd.
Holroyd (John) & Co., Ltd.

Cerium Compounds

Howards & Sons, Ltd.
May & Baker, Ltd.

Chaff Cutters

Clayton & Shuttleworth, Ltd.
Osborn (Samuel) & Co., Ltd.
Ruston & Hornsby, Ltd.
Sanderson Bros. & Newbould, Ltd.

Chaff Knives

Clayton & Shuttleworth, Ltd.
Osborn (Samuel) & Co., Ltd.
Sanderson Bros. & Newbould, Ltd

Chain Cables, Ships'

Bullivant & Co., Ltd.
Todd Bros.

Chains, Crane & Pulley-block

Bullivant & Co., Ltd.
Holt & Willetts.
Todd Bros.
Youngs.

Chains, Dog

Finnigans, Ltd.

Chains, Gold, Silver & Plated

Finnigans, Ltd.
Orbito Co., Ltd.
Pepper (A. J.) & Co., Ltd.

Chains, Iron & Steel (Sundry)

Hadfields, Ltd.
Ley's Malleable Castings Co., Ltd
Todd Bros.

Chains, Power Transmission

Coventry Chain Co., Ltd.
Ley's Malleable Castings Co., Ltd.
Sturtevant Engineering Co., Ltd.

Chains, Roller-type

Coventry Chain Co., Ltd.
Ley's Malleable Castings Co., Ltd.
Pugh (Charles H.) Ltd.
Sturtevant Engineering Co., Ltd.

Chains, Sprocket

(See "Chains, Roller-type.")

Chains, Wire & Jack

Alldays & Onions, Ltd.
Smith (John), Ltd.

Chairs

Bath Aircraft, Ltd.
Birch (William), Ltd.
Crittall Manufacturing Co , Ltd.
Grahame-White Co., Ltd.
Heywood (John), Ltd.
Jennings (George), Ltd.
Lebus (Harris).

Chairs, Railway

(See "Rails, Fastenings and Accessories.")

Chalk, French

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Chandeliers

Russell (John) & Co., Ltd.
White, Allom & Co.

Channels, Iron & Steel

(See "Iron, etc.," and "Steel, etc.")

Charcoal

Boots Pure Drug Co., Ltd.
Chilworth Gunpowder Co., Ltd.
Wilson Bros. Bobbin Co., Ltd.

Charts *(See "Maps.")*

Checks & Labels (Metal)

Bulpitt & Sons, Ltd.
Greenwood & Batley, Ltd.
Sale (H. B.), Ltd.

Cheese Tasters *(See "Hand Tools, Sundry."*

Chemical Plant

Brinjes & Goodwin, Ltd.
British Aluminium Co., Ltd.
Cradley Boiler Co., Ltd.
Doulton & Co., Ltd.
Explosives Trades, Ltd.
Hollings & Guest, Ltd.
Holmes (W. C.) & Co., Ltd.
Manlove, Alliott & Co., Ltd.
Mechans, Ltd.
Morton (Francis) & Co., Ltd.
Newell (Ernest) & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Thompson (John) (Wolverhampton), Ltd.
Whessoe Foundry Co., Ltd.
Woodall, Duckham & Jones (1920), Ltd.

Chemical Ware

(See "Porcelain, Laboratory and Chemical Ware.")

Chemicals, Analytical

British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
Johnson & Matthey & Co., Ltd.

Chemicals, Anti-fouling

Brotherton & Co., Ltd.
Howards & Sons, Ltd.
International Paint & Compositions Co., Ltd.
Major & Co., Ltd.
May & Baker, Ltd.

Chemicals, Laundries'

British Dyestuffs Corporation, Ltd.
Brotherton & Co., Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Chemicals, Rare

British Drug Houses, Ltd.
British Dyestuffs Corporation, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
Johnson, Matthey & Co., Ltd.
May & Baker, Ltd.

Chemists' & Assayers' Supplies

Howards & Sons, Ltd.
May & Baker, Ltd.

Cheves *(See "Hand Tools, Cooper's.")*

Chimneys, Lamp

(See "Glass-ware, Illuminating.")

Chimneys & Smoke Stacks, Steel

Braime (T. F.) & Co., Ltd.
Cradley Boiler Co., Ltd.
Findlay (Alex.) & Co., Ltd.
Harvey (G. A.) & Co. (London), Ltd.
Head, Wrightson & Co., Ltd.
Lysaght (John), Ltd.
Matthews & Yates, Ltd.
Mechans, Ltd.
Morton (Francis) & Co., Ltd.
Motherwell Bridge Co., Ltd.
Musgrave & Co., Ltd.
Newton, Chambers & Co., Ltd.
North Eastern Marine Engineering Co., Ltd.
Orr, Watt & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Whessoe Foundry Co., Ltd.

China Clay

Nagersheth (M.) Sons.

Chinaware

Doulton & Co., Ltd
Finnigans, Ltd.

Chisels, Carpenters', Carvers' and Sundry Woodworking

Jonas & Colver, Ltd.
Kayser, Ellison & Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Sanderson Bros. & Newbould, Ltd.

Chisels, Fitters' & Masons'

Beardshaw (J.) & Son, Ltd.
Hardy Patent Pick Co., Ltd.
Jonas & Colver, Ltd.
Kayser, Ellison & Co., Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
Osborn (Samuel) & Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Turton Bros. & Matthews, Ltd.

Chloral Formamide

Boots Pure Drug Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Chloral Hydrate

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Chloramine T.

Boots Pure Drug Co., Ltd.
May & Baker, Ltd.

Chlorine, Liquid

United Alkali Co., Ltd.

Chloroform

Boots Pure Drug Co., Ltd.
Bush (W. J.) & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Chocolate

Batger & Co.
Harrod's, Ltd.
Pascall (James), Ltd.
Payne (George) & Co., Ltd.
Peek, Frean & Co., Ltd.
Rowntree & Co., Ltd.
Watford Manufacturing Co., Ltd.

Chocolates, Confectionery

Batger, & Co.
Carr & Co., Ltd.
Crosse & Blackwell (Manufacturing Co.), Ltd.
Harrod's, Ltd.
Keiller (James) & Son, Ltd.
Pascall (James), Ltd.
Payne (George) & Co., Ltd.
Peek, Frean & Co., Ltd.
Rowntree & Co., Ltd.
Watford Manufacturing Co., Ltd.

Chocolate Machinery

Brinjes & Goodwin, Ltd.
Greenwood & Batley, Ltd.

Choppers & Cleavers

Osborn (Samuel) & Co., Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.

Choppers, Food

Osborn (Samuel) & Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.

Chromium Oxide

Berger (Lewis) & Sons, Ltd.
May & Baker, Ltd.

Chucks

Allen (W. H.), Sons & Co., Ltd.
Associated British Machine Tool Makers, Ltd
Holroyd (John) & Co., Ltd.
Jones (A. A.) & Shipman, Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
Vickers, Ltd.

Churns, Butter

Boby (Robert), Ltd.
Lister (R. A.) & Co., Ltd.

Cigarettes *(See "Tobacco, etc.")*

Cigarette & Cigar-Holders

Dunhill (Alfred).
Finnigans, Ltd.

Cigarette-making Machinery
Greenwood & Batley, Ltd.

Cigars *(See "Tobacco, etc.")*

Cigarette Papers
Spicer (James) & Sons, Ltd.

Cinchonidine Salts
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Cinchonine Salts
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Cinder Sifters
(See "Sieves and Riddles.")

Cinematograph Apparatus
Acetylene Corporation of Great Britain, Ltd.
Barr & Stroud, Ltd.

Cinematograph Film
British Cellulose & Chemical Manufacturing Co. Ltd.
Explosives Trades, Ltd.

Cinematograph Films & Productions
Hepworth Picture Plays, Ltd.

Circuit Breakers (Air Break)
Electric Construction Co., Ltd.
Ellison (George).
English Electric Co., Ltd.
General Electric Co., Ltd.
Metropolitan-Vickers Electrical Co., Ltd.

Circuit Breakers (Oil Break)
Electric Construction Co., Ltd.
Ellison (George).
English Electric Co., Ltd.
General Electric Co., Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Sandycroft, Ltd.

Cisterns, Flushing
Baldwins, Ltd.
Braby (Frederick) & Co., Ltd.
Carron Company.
Doulton & Co., Ltd.
Harvey (G. A.) & Co. (London), Ltd.
Jennings (George), Ltd.
Newton, Chambers & Co., Ltd.
Russell (John) & Co., Ltd.
Stone (J.) & Co., Ltd.
United Brassfounders & Engineers, Ltd

Citrates
British Drug Houses, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Clams *(See "Hand Tools, Sundry.")*

Clamps *(See "Cramps.")*

Classifiers *(See "Mining Machinery.")*

Clay, Fire *(See "Refractory Metals.")*

Cleaning Machinery (Grain)
(See "Grain Cleaning and Handling Machinery.")

Cleats
Braby (Frederick) & Co., Ltd.
Bullers, Ltd.
Measures Bros. (1911), Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd

Clips, Spring, Various
Benton & Stone, Ltd.
Mechans, Ltd.
Mitchell (William) (Pens), Ltd.
Setten & Durward.
Smith (John), Ltd.
Terry (Herbert) & Sons, Ltd.

Clippers, Machine (Animal)
Cooper (William) & Nephews.
Wolseley Sheep Shearing Machine Co., Ltd.

Clocks & Watches
Cartland (James) & Sons, Ltd.
Finnigans, Ltd.
Smith (S.) & Sons (Motor Accessories), Ltd.

Clockmakers' Tools
(See "Hand Tools, Watchmaker's.")

Closets, Earth
Jennings (George), Ltd.
Ludlow Bros. (1913), Ltd.
National Galvanisers, Ltd.

Closets, Water *(See "Sanitary Fittings.")*

Clothing, Children's
Barran (John) & Sons, Ltd.
Bayer (Charles) & Co., Ltd.
Camrass (S.) & Sons, Ltd.
Dodd (Victor) & Co.
Elton Cop Dyeing Co., Ltd.
Hollington Bros.
Holloway Bros., Ltd.
Hope Manufacturing Co., Ltd.
Lewis's Ltd.
May (Joseph) & Sons, Ltd.
Williams (George) & Co., Ltd.

Clothing, Leather (for Motorists, &c).
Barran (John) & Sons, Ltd.
Brooks (J. B.) & Co., Ltd.
Clark, Son & Morland, Ltd.
Greengate & Irwell Rubber Co., Ltd.
Holloway Bros., Ltd.
Hope Manufacturing Co., Ltd.
William (George) & Co., Ltd.

Clothing, Men's
Albrecht & Albrecht, Ltd.
Barran (John) & Sons, Ltd.
Campbell (J. W.) & Co.
Camrass (S.) & Sons, Ltd.
Devas, Routledge & Co., Ltd.
Elton Cop Dyeing Co., Ltd.
Goldberg (A.) & Sons.
Hollington Bros.
Holloway Bros., Ltd.
Hope Manufacturing Co., Ltd.
Lewis's, Ltd.
Lichenstein (J. & E.) (Jeleo), Ltd.
May (Joseph) & Sons, Ltd.
Morton & Joynt, Ltd.
Williams (George) & Co., Ltd.

Clothing, Women's *(See "Costumes.")*

Clothing, Youths' & Boys'

Albrecht & Albrecht, Ltd.
Barran (John), Sons, Ltd.
Camrass (S.) & Sons, Ltd.
Devas, Routledge & Co., Ltd
Goldberg (A.) & Sons.
Holloway Bros., Ltd.
Hope Manufacturing Co., Ltd.
Lewis's, Ltd.
Lichenstein (J. & E.) (Jeleo), Ltd.
May (Joseph) & Sons, Ltd.
Morton & Joynt, Ltd.
Vardy & Co., Ltd.
Williams (George) & Co., Ltd.

Clover Hullers

Agricultural & General Engineers, Ltd.
Marshall, Sons & Co., Ltd.
Ransomes, Sims & Jefferies, Ltd.

Clutches & Couplings

Bayliss, Jones & Bayliss, Ltd.
Bridge (David) & Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd
Osborn (Samuel) & Co., Ltd.
Power Plant Co., Ltd.
Sandycroft, Ltd.
Plowright Bros., Ltd.
Unbreakable Pulley & Millgearing Co., Ltd.
Wigglesworth (Frank) & Co., Ltd.

Clutches, Friction

Bridge (David) & Co., Ltd.
Plowright Bros., Ltd.
Power Plant Co., Ltd.
Sandycroft, Ltd.
Unbreakable Pulley & Millgearing Co., Ltd.
Wigglesworth (Frank) & Co., Ltd.
Wild (M. B.) & Co., Ltd

Clutch Linings, Fabric

Bell's United Asbestos Co , Ltd.
Ferodo, Ltd.

Coach & Carriage Furniture & Fittings

Brockhouse (J.) & Co., Ltd.
Singer (J. W.) & Sons, Ltd.
Short Bros. (Rochester & Bedford), Ltd.
Smith (John), Ltd.

Coach & Wagon Ironwork

Brockhouse (J.) & Co., Ltd.
Cotterill (F. W.), Ltd.
Leeds Forge Co., Ltd.
Metropolitan Carriage, Wagon & Finance Co., Ltd.
Short Bros. (Rochester & Bedford), Ltd.
Tees Side Bridge & Engineering Works, Ltd.

Coach Wrenches *(See "Spanners.")*

Coal (Anthracite)

Baird (Wm.) & Co., Ltd.
Cleeves' Western Valleys Anthracite Collieries, Ltd.
Phoenix Patent Fuel, Ltd.

Coal & Ash Handling Machinery

Allen (Edgar) & Co., Ltd.
Arrol (Sir William) & Co., Ltd.
Carron Company.
Clayton, Son & Co., Ltd.
Head, Wrightson & Co., Ltd.
Holroyd (John) & Co., Ltd.
Hudson (Robert), Ltd.
Mechans, Ltd.
Musgrave & Co., Ltd.
Newton, Chambers & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Plowright Bros., Ltd.
Simon (Henry), Ltd.
Stone (J.) & Co., Ltd.
Stothert & Pitt, Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Westwood (Joseph) & Co., Ltd.
Wild (M. B.) & Co., Ltd.

Coal & Ash Handling Machinery, Spare Parts

General Electric Co., Ltd.
Hadfields, Ltd.
Hardy Patent Pick Co., Ltd
Head, Wrightson & Co., Ltd
Hudson (Robert), Ltd.
Lloyd (F. H.) & Co., Ltd.
Mechans, Ltd.
Musgrave & Co., Ltd.
Wood (Hugh) & Co., Ltd.

Coal Boring Machinery
(See "Colliery Plant.")

Coal Breakers

Arrol (Sir William) & Co., Ltd.
Hadfields, Ltd.
Head, Wrightson & Co., Ltd.
Marsden (H. R.), Ltd.
Newell (Ernest) & Co., Ltd.
Vickers, Ltd.
Wood (Hugh) & Co., Ltd.

Coal Cutting Machinery

Climax Rock Drill & Engineering Works, Ltd.
Greenwood & Batley, Ltd.
Hardy Patent Pick Co., Ltd.
Holman Bros., Ltd.
Wood (Hugh) & Co., Ltd.

Coal Cutting Machinery, Spare Parts

Hadfields, Ltd.
Hardy Patent Pick Co., Ltd.
Lloyd (F. H.) & Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Wood (Hugh) & Co., Ltd.

Coal (Gas)

Baird (William) & Co.
Blackwell Colliery Co., Ltd.
Bolckow, Vaughan & Co., Ltd.
Brown (John) & Co., Ltd.
Carlton Main Colliery Co., Ltd.
Clarke, Stevenson & Co.
Clay Cross Co., Ltd.
Consett Iron Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Fountain (George) & Son (1917), Ltd.
Grovesend Steel & Tinplate Co., Ltd.
Heath (Robert) & Low Moor, Ltd.
Knowles (Andrew) & Sons, Ltd.
Low Temperature Carbonisation, Ltd.
Nagersheth (M.) Sons.
Newton, Chambers & Co., Ltd.
Samuelson (Sir B.) & Co., Ltd.
Sheepbridge Coal & Iron Co., Ltd.
Strakers & Love.
Tredegar Iron & Coal Co., Ltd.
Wharncliffe Woodmoor Colliery Co., Ltd.

Coal & Ore Bunkers

(*See "Bunkers, Coal and Ore."*)

Coal Savers

Matthews & Yates, Ltd

Coal (Steam)

Baird (William) & Co., Ltd.
Blaenavon Co., Ltd.
Blackwell Colliery Co., Ltd.
Bolckow, Vaughan & Co., Ltd.
Bolsover Colliery Co., Ltd.
Brown (John) & Co., Ltd.
Clarke (Stevenson) & Co.
Clay Cross Co., Ltd.
Consett Iron Co., Ltd.
Cowpen Coal Co., Ltd.
Dinnington Main Coal Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Graigola Merthyr Co., Ltd.
Grovesend Steel & Tinplate Co., Ltd.
Heath (Robert) & Low Moor, Ltd.
Knowles (Andrew) & Sons, Ltd.
Merry & Cuninghame, Ltd.
New Hucknall Colliery Co., Ltd.
Pease & Partners, Ltd.
Phoenix Patent Fuel, Ltd.
Samuelson (Sir B.) & Co., Ltd.
Sheepbridge Coal & Iron Co., Ltd.
Strakers & Love.
Staveley Coal & Iron Co., Ltd.
Tredegar Iron & Coal Co., Ltd.

Coal Tar & Ammonia Products

Baird (William) & Co.
Blackwell Colliery Co., Ltd.
Blaenavon Co., Ltd.
Bolckow, Vaughan & Co., Ltd
Brentford Gas Co.
Brotherton & Co., Ltd.
Brown (John) & Co., Ltd.
Brymbo Steel Co., Ltd.
Burt, Boulton & Haywood, Ltd.
Butler (William) & Co. (Bristol), Ltd.
Cargo Fleet Iron Co., Ltd.
Chance & Hunt. Ltd.
Clay Cross Co., Ltd.
Consett Iron Co., Ltd.
Dinnington Main Coal Co., Ltd
Dorman, Long & Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Forbes, Abbott & Lennard, Ltd.
Fox (Samuel) & Co., Ltd.
Gas Light & Coke Co.
Leitch (John W.) & Co., Ltd.
Low Temperature Carbonisation, Ltd.
Lysaght (John), Ltd.
Merry & Cuninghame, Ltd.
Major & Co., Ltd.
Newton, Chambers & Co., Ltd.
North Eastern Steel Co., Ltd.
Pearson (William), Ltd.
Pease & Partners, Ltd.
Redbourn Hill Iron & Coal Co., Ltd.
South Metropolitan Gas Co.
Staveley Coal & Iron Co., Ltd.
Strakers & Love.
United Alkali Co., Ltd.

Coal Tar (Crude & Refined)

Baird (Wm.) & Co., Ltd.
Bell Bros., Ltd.
Blaenavon Co., Ltd.
British Dyestuffs Corporation, Ltd.
Brotherton & Co., Ltd.
Burt, Boulton & Haywood, Ltd.
Butler (William) & Co. (Bristol), Ltd.
Cargo Fleet Iron Co., Ltd.
Clay Cross Co., Ltd.
Consett Iron Co., Ltd.
Cooper (William) & Nephews.
Dinnington Main Coal Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Gas Light & Coke Co.
Guest, Keen & Nettlefolds, Ltd.
Lysaght (John), Ltd.
Major & Co., Ltd.
Newton, Chambers & Co., Ltd.
Pease & Partners, Ltd.
Redbourn, Hill Iron & Coal Co., Ltd.
Samuelson (Sir B.) & Co., Ltd.
Skinningrove Iron Co., Ltd.
South Metropolitan Gas Co.
Staveley Coal & Iron Co., Ltd.
Strakers & Love.

Coal Vases, Scoops, &c.

(*See "Furniture, Hearth," and "Hollow-ware."*)

Coal Washing & Screening Machinery

(*See "Colliery Plant."*)

Coat Hooks

(*See "Brassfoundery," and "Ironmongery, Builder's."*)

Cobalt & Salts

Boake (A.), Roberts & Co., Ltd.
May & Baker, Ltd.

Cocaine & Salts

Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Cocks, Main & Gland

Audley Engineering Co., Ltd.
Bell's United Asbestos Co., Ltd.
Blakeborough (J.) & Sons, Ltd.
Donkin (Bryan) Co., Ltd.
Mountford (Frederick) (Birmingham), Ltd.
Russell (John) & Co., Ltd.
Stone (J.) & Co., Ltd.

Cocoa

Crosse & Blackwell (Mfg. Co.), Ltd.
Harrod's, Ltd.
Payne (George) & Co., Ltd.
Rowntree & Co., Ltd.
Watford Manufacturing Co., Ltd.

Cocoa Butter

Evans, Sons, Lescher & Webb, Ltd.
Loders & Nucoline, Ltd.
May & Baker, Ltd.
Payne (George) & Co., Ltd.
Rowntree & Co., Ltd.
Watford Manufacturing Co., Ltd.

Cocoa Butter Substitutes

Loders & Nucoline, Ltd.

Codeine & Salts

May & Baker, Ltd.
Whiffen & Sons, Ltd.

Cod Liver Oil *(See "Oil.")*

Coffee

Bush (W. J.) & Co., Ltd.
Crosse & Blackwell (Mfg. Co.), Ltd.
Payne (George) & Co., Ltd.

Coffee Essence

Bush (W. J.) & Co., Ltd.
Crosse & Blackwell (Mfg. Co.), Ltd.
Simpson (William) (Manchester), Ltd.

Coffee Pots

(See "Britannia Metal Ware," "Tinware," etc.)

Coir & Coir Goods

Wright (John & Edwin), Ltd.

Coke

Baird (William) & Co., Ltd.
Blackwell Colliery Co., Ltd.
Blaenavon Co., Ltd.
Bolckow, Vaughan & Co., Ltd.
Brentford Gas Co.
Brymbo Steel Co., Ltd.
Clay Cross Co., Ltd.
Clarke (Stevenson) & Co.
Commercial Gas Co.
Consett Iron Co., Ltd.
Dinnington Main Coal Co., Ltd.
Dorman, Long & Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd
Lysaght (John), Ltd.
North Eastern Steel Co., Ltd.
Nagersheth (M.) Sons.
Newton, Chambers & Co., Ltd.
Pease & Partners, Ltd.
Redbourn Hill Iron & Coal Co., Ltd.
Samuelson (Sir B.) & Co., Ltd.
Skinningrove Iron Co., Ltd.
Tredegar Iron & Coal Co., Ltd.

Coke Breakers

Clayton, Son & Co., Ltd.
Craven Bros. (Manchester), Ltd.
Hadfields, Ltd.
Head, Wrightson & Co., Ltd.
Marsden (H. R.), Ltd.
Vickers, Ltd.

Colanders *(See "Tinware.")*

Cold Chisels *(See "Chisels, Fitter's.")*

Cold Storage Plant

Hall (J. & E.), Ltd.
Lightfoot Refrigeration Co., Ltd.
Liverpool Refrigeration Co., Ltd
Mechans, Ltd.
Pulsometer Engineering Co., Ltd.
Ransomes & Rapier, Ltd.
Vickers, Ltd.

Collars & Cuffs

McIntyre, Hogg, Marsh & Co., Ltd.

Collars & Cuffs (Celluloid)

North British Rubber Co., Ltd.

Collars, Dog

Brooks (J. B.) & Co., Ltd.
Finnigans, Ltd.

Colliery Plant

Agricultural & General Engineers, Ltd.
Allen (Edgar) & Co., Ltd.
Birtley Iron Co.
Bridge (David) & Co., Ltd.
Hardy Patent Pick Co., Ltd.
Holman Bros., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Hudson (Robert), Ltd.
Markham & Co., Ltd.
Matthews & Yates, Ltd.
Mechans, Ltd.
Plowright Bros., Ltd.
Sandycroft, Ltd.
Sheepbridge Coal & Iron Co., Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Vickers, Ltd.
Whessoe Foundry Co., Ltd.
Wild (M. B.) & Co., Ltd.
Wright (John & Edwin), Ltd.

Colours, Culinary, Confectionery, Medicinal, &c.

British Dyestuffs Corporation, Ltd.
Brotherton & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Colours, Dry

Berger (Lewis) & Sons, Ltd.
British Dyestuffs Corporation, Ltd
Cookson & Co., Ltd.
Docker Bros., Ltd.
Jenson, Nicholson, Ltd.
Kidd (John) & Co., Ltd.
Orr's Zinc White, Ltd.
Rose (Sir W. A.) & Co., Ltd.
Sharp (J. B. & W. R.), Ltd.

Colours, Oil *(See "Paints.")*

Combs

Aberdeen Comb Works Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Finnigans, Ltd.
North British Rubber Co., Ltd.

Combs, Graining

(See "Hand Tools, Painter's.")

Commutators, Dynamo & Bars

Blackwell (Robert W.) & Co., Ltd.
Bolton (Thomas) & Sons, Ltd.
Electric Construction Co., Ltd.
English Electric Co., Ltd.
General Electric Co., Ltd.
Greenwood & Batley, Ltd.
Matthews & Yates, Ltd.
Sandycroft, Ltd.
Stone (J.) & Co., Ltd.
Vickers, Ltd.

Compasses, Gyroscopic

Barr & Stroud, Ltd.
Brown (S. G.), Ltd.
Vickers, Ltd.

Compasses, Magnetic

Dennison Watch Case Co. Ltd.
Halden (J.) & Co., Ltd.
Smith (S.) & Sons (Motor Accessories), Ltd

Compressors, Air, Gas, &c.

Alldays & Onions, Ltd.
Armstrongs & Main, Ltd.
Aublet (Harry) & Co., Ltd.
Blackwell (Robert W.) & Co., Ltd.
British Oxygen Co., Ltd.
Donkin (Bryan) & Co., Ltd.
English Electric Co., Ltd.
General Electric Co , Ltd.
Hall (J. & E.), Ltd.
Hardy Patent Pick Co., Ltd.
Holman Bros., Ltd.
Holroyd (John) & Co., Ltd.
Hydrogen & Oxygen & Plant Co., Ltd.
Liverpool Refrigeration Co., Ltd.
Manlove, Alliott & Co., Ltd.
Markham & Co., Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Parsons (C. A.) & Co., Ltd.
Robey & Co., Ltd.
Sandycroft, Ltd.
United Brassfounders & Engineers, Ltd.
Whitehead Torpedo Works (Weymouth), Ltd.
White (J. Samuel) & Co., Ltd.
Wood (Hugh) & Co., Ltd.
Yates & Thom, Ltd.

Concentrators, Ore

(*See "Mining Machinery."*)

Concrete

Bain (William) & Co., Ltd.
Bolckow, Vaughan & Co., Ltd.

Concrete Block-making Machines

Berry (Henry) & Co., Ltd.
Carron Company.
Stothert & Pitt, Ltd.
Vickers, Ltd.

Concrete Mixing & Cement-making Machinery

Allen (Edgar) & Co., Ltd.
British Steel Piling Co.
Hadfields, Ltd.
Newell (Ernest) & Co., Ltd.
Ransomes & Rapier, Ltd.
Sandycroft, Ltd.
Stothert & Pitt, Ltd.
Vickers, Ltd.

Concrete, Reinforcements for

Armstrongs & Main, Ltd.
Bain (William) & Co., Ltd.
Barrow Hematite Steel Co., Ltd.
British Reinforced Concrete Engineering Co., Ltd.

Condensers

Allen (W. H.), Sons & Co., Ltd.
Ashwell & Nesbit, Ltd.
Brightside Foundry & Engineering Co., Ltd.
Brown (S. G.), Ltd.
Brush Electrical Engineering Co., Ltd.
Clarke, Chapman & Co., Ltd.
Earle, Bourne & Co., Ltd.
English Electric Co., Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Hick, Hargreaves & Co., Ltd.
Liverpool Refrigeration Co., Ltd.
Manlove, Alliott & Co., Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Mirrlees, Watson Co., Ltd.
Newton, Chambers & Co., Ltd.
North Eastern Marine Engineering Co., Ltd.
Parsons (C. A.) & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Rees Roturbo Manufacturing Co , Ltd.
United Brassfounders & Engineers, Ltd
Vickers, Ltd.
Weir (C. & J.), Ltd.
Whessoe Foundry Co., Ltd.
White (J. Samuel) & Co., Ltd.
Yarrow & Co., Ltd.
Yates & Thom, Ltd.

Condensers, Electric

British Insulated & Helsby Cables, Ltd.
General Electric Co., Ltd.
Weir (G. & J.), Ltd

Condensers, Gas

Clayton, Son & Co., Ltd.
Head, Wrightson & Co., Ltd.
Liverpool Refrigeration Co., Ltd.
Newton, Chambers & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Whessoe Foundry Co., Ltd.

Conduits & Fittings for Cables, Electric

Bayliss (William), Ltd.
Callender's Cable & Construction Co., Ltd.
Doulton & Co., Ltd.
Edison Swan Electric Co., Ltd.
English Electric Co., Ltd.
General Electric Co., Ltd.
Henley's (W. T.) Telegraph Works Co., Ltd.
Jennings (George), Ltd.
Vickers, Ltd.

Confectioners' Equipment

(*See "Bakers', etc."*)

Confectionery

Batger & Co.
Carr & Co., Ltd.
Crosse & Blackwell (Mfg. Co.), Ltd.
Harrod's, Ltd.
Keiller (James) & Son, Ltd.
Pascall (James), Ltd.
Rowntree & Co., Ltd.
Watford Manufacturing Co., Ltd.

Constructional Engineering

Armstrongs & Main, Ltd.
Arrol (Sir William) & Co., Ltd.
Bain (William) & Co., Ltd.
Balfour, Beatty & Co., Ltd.
Braby (Frederick) & Co., Ltd.
Braithwaite & Co.
Clayton, Son & Co., Ltd.
Cleveland Bridge & Engineering Co., Ltd.
Drew-Bear, Perks & Co., Ltd.
Findlay (Alex.) & Co., Ltd.
Head, Wrightson & Co., Ltd.
Hill (J. & P.).
Horsehay Co., Ltd.
Humphreys, Ltd.

Constructional Engineering—*continued.*

Keay (E., C. & J.), Ltd.
Lanarkshire Steel Co., Ltd.
Lysaght (John), Ltd.
McAlpine (Sir Robert) & Sons, Ltd.
MacLellan (P. & W.), Ltd.
Marconi's Wireless Telegraph Co., Ltd.
Markham & Co., Ltd.
Matthews & Yates, Ltd.
Measures Bros. (1911), Ltd.
Mechans, Ltd.
Metropolitan Carriage, Wagon & Finance Co. Ltd.
Morton (Francis) & Co., Ltd.
Motherwell Bridge Co., Ltd.
Musgrave & Co., Ltd.
Newton, Chambers & Co., Ltd.
Nicholson (Wm.) & Son (Leeds). Ltd
Orr, Watt & Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Redpath, Brown & Co., Ltd.
Vickers Ltd.
Whessoe Foundry Co., Ltd.
Wood (Edward) & Co., Ltd.

Constructional Steel & Iron Work

(*See "Steel Structural Work."*)

Controllers, Electric Crane

Electric Construction Co., Ltd.
Electro-Mechanical Brake Co., Ltd.
Ellison (George).
English Electric Co., Ltd.
General Electric Co., Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Steel, Peech & Tozer, Ltd.
Vickers, Ltd.

Controllers, Overwinding & Overspeed

Ellison (George).
English Electric Co., Ltd.
Markham & Co., Ltd.
Robey & Co., Ltd.

Convectors, Electric

Carron Company.
Electric Construction Co., Ltd.
English Electric Co., Ltd.
General Electric Co., Ltd.

Converters, Motor

Crompton & Co., Ltd.
Electric Construction Co., Ltd.
English Electric Co., Ltd.
General Electric Co., Ltd.
Greenwood & Batley, Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Mather & Platt, Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Sandycroft, Ltd.

Converters, Rotary

Crompton & Co., Ltd.
Electric Construction Co., Ltd.
English Electric Co., Ltd.
General Electric Co., Ltd.
Greenwood & Batley, Ltd.
Mather & Platt, Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Sandycroft, Ltd.

Conveyors, Belt

Boby (Robert), Ltd.
Bright (John) & Bros., Ltd.
Clayton, Son & Co., Ltd.
General Electric Co., Ltd.
Greengate & Irwell Rubber Co., Ltd.
Greening (N.) & Sons, Ltd.
Head, Wrightson & Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Johnson (C. H.) & Sons, Ltd.
Ley's Malleable Castings Co., Ltd.
Mechans, Ltd.
Newell (Ernest) & Co., Ltd.
Plowright Bros., Ltd.
Sandycroft, Ltd.
Simon (Henry), Ltd.
Stott (James), Ltd.

Conveyors & Elevators, Bucket

Allen (Edgar) & Co., Ltd.
Boby (Robert), Ltd.
Clayton, Son & Co., Ltd.
General Electric Co., Ltd.
Greening (N.) & Sons, Ltd.
Greenwood & Batley, Ltd.
Hadfields, Ltd.
Hardy Patent Pick Co., Ltd.
Head, Wrightson & Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Johnson (C. H.) & Sons, Ltd.
Ley's Malleable Castings Co., Ltd
Marsden (H. R.), Ltd.
Mechans, Ltd.
Newell (Ernest) & Co., Ltd.
Newton, Chambers & Co., Ltd
Plowright Bros., Ltd.
Sandycroft, Ltd.
Simon (Henry), Ltd.
Sturtevant Engineering Co., Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Westwood (Joseph) & Co., Ltd.
Wild (M. B.) & Co., Ltd

Conveyors & Elevators, Pneumatic

Ashwell & Nesbit, Ltd.
Boby (Robert), Ltd.
Matthews & Yates, Ltd.
Musgrave & Co., Ltd.
Sandycroft, Ltd.
Simon (Henry), Ltd.
Sturtevant Engineering Co., Ltd.
Wild (M. B.) & Co., Ltd

Conveyors & Elevators, Various

Alldays & Onions, Ltd.
Allen (Edgar) & Co., Ltd.
Armstrongs & Main, Ltd.
Clayton, Son & Co., Ltd.
General Electric Co., Ltd.
Hardy Patent Pick Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Ley's Malleable Castings Co., Ltd.
Mechans, Ltd.
Newell (Ernest) & Co., Ltd.
Plowright Bros., Ltd.
Ropeways, Ltd.
Ruston & Hornsby, Ltd.
Sandycroft, Ltd.
Simon (Henry), Ltd.
Sturtevant Engineering Co., Ltd.
Wild (M. B.) & Co., Ltd.

Cookers, Electric

(*See "Electric Heating and Cooking Apparatus."*)

Cooking Apparatus (Steam)

Ashwell & Nesbit, Ltd.
Brightside Foundry & Engineering Co., Ltd.
Carron Company.
Glover & Main, Ltd.
Joseph (N. C.).
Manlove, Alliott & Co., Ltd.
Newton, Chambers & Co., Ltd.

Cooking Utensils

(*See "Hollow-ware."*)

Copper Bars, Ingots, &c.

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Bibby (John), Sons & Co. (Garston), Ltd.
Birmingham Battery & Metal Co., Ltd.
Blackwell (Robert W.) & Co., Ltd.
Bolton (Thomas) & Sons, Ltd.
Broughton Copper Co., Ltd.
Capper, Pass & Son, Ltd.
Clifford (Charles) & Son, Ltd.
Delta Metal Co., Ltd.
Dennis (James H.) & Co., Ltd.
Elliott's Metal Co., Ltd.
Explosives Trades, Ltd.
London Electric Wire Co. & Smiths, Ltd.
Muntz's Metal Co., Ltd.
Stone (J.) & Co., Ltd.
Tayler (D F.) & Co., Ltd.
Vivian (H. H.) & Co., Ltd.
Vivian & Sons, Ltd.

Copper Castings, Tubes, Wire, &c.

(*See under "Castings," "Tubes," etc.*)

Copper Pans

Bibby (John), Sons & Co. (Garston), Ltd.
Bolton (Thomas) & Sons, Ltd.
Braby (Frederick) & Co., Ltd.
Brinjes & Goodwin, Ltd.
Broughton Copper Co., Ltd.
Bulpitt & Sons, Ltd.
Explosives Trades, Ltd.
Hancock, Corfield & Waller, Ltd.
Manlove, Alliott & Co., Ltd.
Stone (J.) & Co., Ltd.
United Brassfounders & Engineers, Ltd.
Vivian & Sons, Ltd.

Copper Plates

Bibby (John), Sons & Co. (Garston), Ltd.
Birmingham Battery & Metal Co., Ltd.
Blackwell (Robert W.) & Co., Ltd.
Bolton (Thomas) & Sons, Ltd.
Booth (James) & Co. (1915), Ltd.
Broughton Copper Co., Ltd.
Clifford (Chas.) & Son, Ltd.
Earle, Bourne & Co., Ltd.
Elliott's Metal Co., Ltd.
Explosives Trades, Ltd.
Hawthorne (R. & W.), Leslie & Co., Ltd.
North British Locomotive Co., Ltd.
Stone (J.) & Co., Ltd.
Tayler (D. F.) & Co., Ltd.
Vickers, Ltd.
Vivian & Sons, Ltd.

Copper Products (Chemical)

Bolton (Thomas) & Sons, Ltd
Brinjes & Goodwin, Ltd.
Canning (W.) & Co.
Dennis (James H.) & Co., Ltd.
International Paint & Compositions Co., Ltd.
McKechnie Bros., Ltd.
Mond Nickel Co., Ltd.
Thomas (Richard) & Co., Ltd
United Alkali Co., Ltd.

Copper Rods

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Delta Metal Co., Ltd.
Bibby (John), Sons & Co. (Garston), Ltd.
Birmingham Battery & Metal Co., Ltd.
Bolton (Thomas) & Sons, Ltd.
Booth (James) & Co. (1915), Ltd.
British Insulated & Helsby Cables, Ltd.
Broughton Copper Co., Ltd.
Clifford (Charles) & Son, Ltd.
Croft (A. J.) & Co., Ltd.
Explosives Trades, Ltd.
Laing (Sir James) & Sons, Ltd.
London Electric Wire Co. & Smiths, Ltd.
Muntz's Metal Co., Ltd.
Stone (J.) & Co., Ltd.
Tayler (D. F.) & Co., Ltd.
Vivian & Sons, Ltd.

Copper Sheets

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Bibby (John), Sons & Co. (Garston), Ltd.
Birmingham Battery & Metal Co., Ltd.
Blackwell (Robert W.) & Co., Ltd.
Bolton (Thomas) & Sons, Ltd.
Booth (James) & Co. (1915), Ltd.
Broughton Copper Co., Ltd.
Clifford (Chas.) & Son, Ltd.
Delta Metal Co., Ltd.
Earle, Bourne & Co., Ltd.
Elliott's Metal Co., Ltd.
Explosives Trades, Ltd.
Stone (J.) & Co., Ltd.
Tayler (D. F.) & Co., Ltd.
Vickers, Ltd.
Vivian (H. H.) & Co., Ltd.
Vivian & Sons, Ltd.

Copper Sulphate

Bolton (Thomas) & Sons, Ltd.
Capper, Pass & Son, Ltd.
Dennis (James H.) & Co., Ltd.
May & Baker, Ltd.
Mond Nickel Co., Ltd.
Spencer, Chapman & Messel, Ltd.
Vivian & Sons, Ltd.

Copper-ware (*See "Hollow-ware."*)

Cordage

Dixon & Corbett, & R. S. Newall & Co., Ltd
Haggie (R.), Hood & Son, Ltd.
Piggott Bros. & Co., Ltd.
Wright (John & Edwin), Ltd.

Cork & Cork Goods

Hobdell, Way & Co., Ltd.

Corkscrews

Guest, Keen & Nettlefolds, Ltd.
Mountford (Fredk.) (Birmingham), Ltd.

Corn-bins
(See "Galvanized Iron Goods.")

Corrosive Sublimate
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Corrugated Sheets
(See "Iron Sheets" and "Steel Sheets Corrugated.")

Corsets
Bayer (Charles) & Co., Ltd.
Pretty (William) & Sons, Ltd.
Waterhouse Reynolds & Co., Ltd.

Corset Steels
Jonas & Colver, Ltd.
Pretty (William) & Sons, Ltd.
Sanderson Bros. & Newbould, Ltd.
Wright, Bindley & Gell, Ltd.

Corundum *(See "Abrasives.")*

Cosmetics
Maw (S.), Son & Sons, Ltd.
May & Baker, Ltd.

Costume Cloths
Benn (J.) Junr.
Cliffe Mills Co., Ltd.
Clough (Robert).
Empsall & Firth, Ltd.
Emsley (J.) & Co., Ltd.
Foster (John) & Son, Ltd.
Fur Fabric Co., Ltd.
Halliday (John) & Sons.
Harrow-Bunn & Butler.
Hudson, Sykes & Busfield, Ltd.
Kershaw, Leese & Co., Ltd.
Lupton (Wm.) & Co.
Pepper, Lee & Co., Ltd.
Porritts & Spencer, Ltd.
Salt (Sir Titus), Best, Sons & Co., Ltd.
Smithson (Joseph), Ltd.
Tootal, Broadhurst, Lee Co., Ltd.
Walker Bros.
Wilkinson (John).
Yates (W. E.), Ltd.

Costumes
Davis (Samuel) & Sons.
Devas, Routledge & Co., Ltd.
Harrod's, Ltd.
Hollington Bros.
Lewis's, Ltd.
Neckwear, Ltd.
Williams (George) & Co., Ltd.

Cotarnine Hydrochloride
May & Baker, Ltd.

Cotarnine Phthalate
May & Baker, Ltd.

Cotter Pins
Cotterill (F. W.), Ltd.
Greener (W. W.)., Ltd.
Guest, Keen & Nettlefolds, Ltd.
Hadfields, Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
Newey Bros., Ltd.
Smith (John), Ltd.

Cotton Damasks
Brown (John S.) & Sons, Ltd.
Ewart (William) & Son, Ltd.
Harrow-Bunn & Butler.
Kershaw, Leese & Co., Ltd.
McCrum, Watson & Mercer, Ltd.
Simpson & Godlee, Ltd.

Cotton Dress Fabrics
Barlow & Jones, Ltd.
Brown (John S.) & Sons, Ltd.
Bright (John) & Bros., Ltd.
Burgess, Ledward & Co., Ltd.
Calico Printers' Association, Ltd.
Emsley (J.) & Co., Ltd.
Grane Manufacturing Co., Ltd.
Halliday (John) & Sons.
Harrow-Bunn & Butler.
Haslams, Ltd.
Haworth (Richard) & Co., Ltd.
Hollins Mill Co., Ltd.
Horrockses, Crewdson & Co., Ltd.
Hoyle (Joshua) & Sons, Ltd.
Jones Bros., Ltd.
Kershaw, Leese & Co., Ltd.
Plews (Leonard), Ltd.
Rose, Hewitt & Co.
Simpson & Godlee, Ltd.
Smithson (Joseph), Ltd.
Thomas (J.) & Co., Ltd.
Tootal, Broadhurst, Lee Co., Ltd.
United Turkey Red Co., Ltd.
Walker Bros.
Wilkinson (John).

Cotton Drills & Ducks
Bright (John) & Bros., Ltd.
Brown (John S.) & Sons, Ltd.
Burgess, Ledward & Co., Ltd.
County Down Weaving Co., Ltd.
Dugdale (John) & Bros.
Ewart (William) & Son, Ltd.
Faire Bros. & Co., Ltd.
Finlay (James) & Co., Ltd.
Haworth (Richard) & Co., Ltd.
Horrockses, Crewdson & Co., Ltd.
Hoyle (Joshua) & Sons, Ltd.
Jones Bros., Ltd.
Kershaw, Leese & Co., Ltd.
Mitchell (Andrew) & Co., Ltd.
Nagersheth (M.) Sons.
Plews (Leonard), Ltd.
Rose, Hewitt & Co.
Stott (James), Ltd.
Thomas (J.) & Co., Ltd.
Tootal, Broadhurst, Lee Co., Ltd.
United Turkey Red Co., Ltd.
Whitehead (David) & Sons, Ltd.
Wilkinson (John).

Cotton Fabrics (Corduroys, Fustians,&c.)
Drey, Simpson & Co., Ltd.
Elton Cop Dyeing Co., Ltd.
Hollins Mill Co., Ltd.
Jones Bros., Ltd.
Kershaw, Leese & Co., Ltd.
Hoyle (Joshua) & Sons, Ltd.
Tootal, Broadhurst, Lee Co., Ltd.
Wilkinson (John).

Cotton Fabrics, Mercerised

Barlow & Jones, Ltd.
Bright (John) & Bros., Ltd.
Burgess, Ledward & Co., Ltd.
Cliffe Mills Co., Ltd.
County Down Weaving Co., Ltd.
Emsley (J.) & Co., Ltd.
Grane Manufacturing Co., Ltd.
Halliday (John) & Sons.
Harrow-Bunn & Butler.
Haslams, Ltd.
Haworth (Richard) & Co., Ltd.
Hollins Mill Co., Ltd.
Horrockses, Crewdson & Co., Ltd.
Hoyle (Joshua) & Sons, Ltd.
Jones Bros., Ltd.
Kershaw, Leese & Co., Ltd.
Nagersheth (M.) Sons.
Plews (Leonard), Ltd.
Rose, Hewitt & Co.
Simpson & Godlee, Ltd.
Thomas (J.) & Co., Ltd.
Tootal, Broadhurst, Lee Co., Ltd.
United Turkey Red Co., Ltd.
Walker Bros.
Wilkinson (John).

Cotton Fabrics (Plain Calicoes)

Barlow & Jones, Ltd.
Bayer (Charles) & Co., Ltd.
Birtwistle (J. H.) & Co., Ltd.
Bright (John) & Bros., Ltd.
Brown (John S.) & Sons, Ltd.
Calvert (William) & Sons, Ltd.
Finlay (James) & Co., Ltd.
Grane Manufacturing Co., Ltd.
Harrow-Bunn & Butler.
Haslams, Ltd.
Haworth (Richard) & Co., Ltd.
Hollins Mill Co., Ltd.
Horrockses, Crewdson & Co., Ltd.
Hoyle (Joshua) & Sons, Ltd.
Jones Bros., Ltd.
Kershaw, Leese & Co., Ltd.
Mitchell (Andrew) & Co., Ltd.
Moorbrook Mill Co., Ltd.
Plews (Leonard), Ltd.
Rose, Hewitt & Co.
Thomas (J.) & Co., Ltd.
Tootal, Broadhurst, Lee Co., Ltd.
United Turkey Red Co., Ltd.
Vernon & Co., Ltd.
Whitehead (David) & Sons, Ltd.
Wilkinson (John).

Cotton Fabrics (Printed Calicoes)

Calico Printers' Association, Ltd.
Grane Manufacturing Co., Ltd.
Harrow-Bunn & Butler.
Haslams, Ltd.
Hollin's Mill Co., Ltd.
Hoyle (Joshua) & Sons, Ltd.
Jones Bros., Ltd.
Kershaw, Leese & Co., Ltd.
Plews (Leonard), Ltd.
Rose, Hewitt & Co.
Simpson & Godlee, Ltd.
Tootal, Broadhurst, Lee, Co., Ltd.
United Turkey Red Co., Ltd.
Wilkinson (John).

Cotton Filter Cloths (*See "Filter Cloths."*)

Cotton Flannelettes

Barlow & Jones, Ltd.
Birtwistle (J. H.) & Co , Ltd.
Bright (John) & Bros., Ltd.
Calico Printers' Association, Ltd.
Elton Cop Dyeing Co., Ltd.
Harrow-Bunn & Butler.
Haworth (Richard) & Co., Ltd.
Hollins Mill Co., Ltd.
Horrockses, Crewdson & Co., Ltd.
Hoyle (Joshua) & Sons, Ltd.
Jones Bros., Ltd.
Kershaw, Leese & Co., Ltd.
Rose, Hewitt & Co.
Thomas (J.) & Co., Ltd.
Tootal, Broadhurst, Lee Co., Ltd.
United Turkey Red Co., Ltd.
Wilkinson (John).

Cotton Linings

Barlow & Jones, Ltd.
Birtwistle (J. H.) & Co., Ltd.
Cliffe Mills Co., Ltd.
Emsley (J.) & Co., Ltd.
Faire Bros. & Co., Ltd.
Grane Manufacturing Co., Ltd.
Haslams, Ltd.
Haworth (Richard) & Co., Ltd.
Hollins Mill Co., Ltd.
Hoyle (Joshua) & Sons, Ltd.
Jones Bros., Ltd.
Kershaw, Leese & Co., Ltd.
Lister & Co., Ltd.
Rose, Hewitt & Co.
Simpson & Godlee, Ltd.
Thomas (J.) & Co., Ltd.
Tootal, Broadhurst, Lee Co., Ltd.
Vernon & Co., Ltd.
Whitehead (David) & Sons, Ltd
Wilkinson (John).

Cotton Longcloth

Barlow & Jones, Ltd.
Bayer (Charles) & Co., Ltd.
Bright (John) & Bros., Ltd.
Birtwistle (J. H.) & Co., Ltd.
Grane Manufacturing Co., Ltd.
Harrow-Bunn & Butler.
Haslams, Ltd.
Haworth (Richard) & Co., Ltd.
Hollins Mill Co., Ltd.
Horrockses, Crewdson & Co., Ltd
Hoyle (Joshua) & Sons, Ltd.
Jones Bros., Ltd.
Kershaw, Leese & Co., Ltd.
Rose, Hewitt & Co.
Stott (James), Ltd.
Thomas (J.) & Co., Ltd.
Tootal, Broadhurst, Lee Co., Ltd.
Wilkinson (John).

Cotton Muslins (Fancy)

Harrow-Bunn & Butler.
Haslams, Ltd.
Haworth (Richard) & Co., Ltd.
Jones Bros., Ltd.
Kershaw, Leese & Co., Ltd.
Plews (Leonard), Ltd.
Rose, Hewitt & Co.
Tootal, Broadhurst, Lee Co., Ltd.
Wilkinson (John).

Cotton Muslins (Plain)

Birtwistle (J. H.) & Co., Ltd.
Dugdale (John) & Bros.
Grane Manufacturing Co., Ltd.
Harrow-Bunn & Butler.
Haslams, Ltd.
Haworth (Richard) & Co., Ltd.
Jones Bros., Ltd.
Kershaw, Leese & Co., Ltd.
Moorbrook Mill Co., Ltd.
Plews (Leonard), Ltd.
Rose, Hewitt & Co.
Tootal, Broadhurst, Lee Co., Ltd.
Thomas (J.) & Co., Ltd.
Vernon & Co., Ltd.
Wilkinson (John).

Cotton Poplins

Barlow & Jones, Ltd.
Birtwistle (J. H.) & Co., Ltd.
Bright (John) & Bros., Ltd.
Calico Printers' Association, Ltd.
Cliffe Mills Co., Ltd.
Emsley (J.) & Co., Ltd.
Grane Manufacturing Co., Ltd.
Halliday (John) & Sons.
Harrow-Bunn & Butler.
Haslams, Ltd.
Haworth (Richard) & Co., Ltd.
Hollins Mill Co., Ltd.
Horrockses, Crewdson & Co., Ltd.
Hoyle (Joshua) & Sons, Ltd.
Jones Bros., Ltd.
Kershaw, Leese & Co., Ltd.
Plews (Leonard) Ltd.
Rose, Hewitt & Co.
Smithson (Joseph), Ltd.
Simpson & Godlee, Ltd.
Thomas (J.) & Co., Ltd.
Tootal, Broadhurst, Lee Co., Ltd.
United Turkey Red Co., Ltd.
Walker Bros.
Wilkinson (John).

Cotton, Printed

Barlow & Jones, Ltd.
Calico Printers' Association, Ltd.
Harrow-Bunn & Butler.
Haslams, Ltd.
Haworth (Richard) & Co., Ltd.
Hollins Mill Co., Ltd.
Hoyle (Joshua) & Sons, Ltd.
Jones Bros., Ltd.
Kershaw, Leese & Co., Ltd.
Nagersheth (M.) Sons.
Plews (Leonard), Ltd.
Rose, Hewitt & Co.
Simpson & Godlee, Ltd.
Smithson (Joseph), Ltd.
Tootal, Broadhurst, Lee Co., Ltd.
United Turkey Red Co., Ltd.
Wilkinson (John).

Cotton Sheetings

Barlow & Jones, Ltd.
Bayer (Charles) & Co., Ltd.
Birtwistle (J. H.) & Co., Ltd.
Bright (John) & Bros., Ltd.
Brown (John S.) & Sons.
Dearden (Jonathan) & Co., Ltd.
Dugdale (John) & Bros.
Ewart (William) & Son, Ltd.
Finlay (James) & Co., Ltd.
Haslams, Ltd.
Haworth (Richard) & Co., Ltd.
Hollins Mill Co., Ltd.
Horrockses, Crewdson & Co., Ltd.
Hoyle (Joshua) & Sons, Ltd.
Jones Bros., Ltd.
Kershaw, Leese & Co., Ltd.
Nagersheth (M.) Sons.
Porritts & Spencer, Ltd.
Rose, Hewitt & Co.
Stott (James), Ltd.
Tootal, Broadhurst, Lee Co., Ltd.
Wilkinson (John).

Cotton Shirtings

Barlow & Jones, Ltd.
Birtwistle (J. H.) & Co., Ltd.
Bright (John) & Bros., Ltd.
Burgess, Ledward & Co., Ltd.
Dugdale (John) & Bros.
Ewart (William) & Son, Ltd.
Finlay (James) & Co., Ltd.
Harrow-Bunn & Butler.
Haslams, Ltd.
Haworth (Richard) & Co., Ltd.
Hollins Mill Co., Ltd.
Horrockses, Crewdson & Co., Ltd.
Hoyle (Joshua) & Sons.
Jones Bros., Ltd.
Kershaw, Leese & Co., Ltd
Nagersheth (M.) Sons.
Plews (Leonard), Ltd.
Rose, Hewitt & Co.
Tootal, Broadhurst, Lee Co , Ltd
United Turkey Red Co., Ltd.
Whitehead (David) & Sons, Ltd
Wilkinson (John).

Cotton Smallwares

Brough, Nicholson & Hall, Ltd.
Faire Bros. & Co., Ltd.
Imperial Patent Wadding Co., Ltd.
Kershaw, Leese & Co., Ltd.
Morgan, Crossley & Co., Ltd.
Nagersheth (M.) Sons.
Stott (James), Ltd.
Wardle & Davenport, Ltd.

Cottons, Sewing

English Sewing Cotton, Ltd
Explosives Trades, Ltd.
Coats (J. & P.), Ltd.
Faire Bros. & Co., Ltd.
Kershaw, Leese & Co., Ltd.
Stott (James), Ltd.
Wardle & Davenport, Ltd.

Cottonseed

(*See "Oil, Linseed, etc." and "Meal."*)

Cotton Towels (*See "Towels."*)

Cotton Twills

Bayer (Charles) & Co., Ltd.
Birtwistle (J. H.) & Co., Ltd.
Bright (John) & Bros., Ltd.
Finlay (James) & Co., Ltd.
Haslams, Ltd.
Haworth (Richard) & Co., Ltd.
Hollins Mill Co., Ltd.
Horrockses, Crewdson & Co., Ltd

Cotton Twills—*continued.*

Hoyle (Joshua) & Sons, Ltd.
Jones Bros., Ltd.
Kershaw, Lease & Co., Ltd.
Nagersheth (M.) Sons.
Rose, Hewitt & Co.
Stott (James), Ltd.
Thomas (J.) & Co., Ltd.
Tootal, Broadhurst, Lee Co., Ltd.
United Turkey Red Co., Ltd.
Whitehead (David) & Sons, Ltd.
Wilkinson (John).

Cotton Voiles, Lawns, Nainsooks, &c.

Barlow & Jones, Ltd.
Birtwistle (J. H.) & Co., Ltd.
Bright (John) & Bros., Ltd.
Calico Printers' Association, Ltd.
Dugdale (John) & Bros.
Emsley (J.) & Co., Ltd.
Grane Manufacturing Co., Ltd.
Harrow-Bunn & Butler.
Haslams, Ltd.
Haworth (Richard) & Co., Ltd.
Hollins Mill Co., Ltd.
Horrockses, Crewdson & Co., Ltd.
Hoyle (Joshua) & Sons, Ltd.
Jones Bros., Ltd.
Kershaw, Leese & Co., Ltd.
Moorbank Mill Co., Ltd.
Nagersheth (M.) Sons.
Plews (Leonard), Ltd.
Rose, Hewitt & Co.
Smithson (Joseph), Ltd.
Tootal, Broadhurst, Lee Co., Ltd.
Wilkinson (John).

Cotton, Waste

Austin (Charles E.) & Sons, Ltd.
Explosives Trades, Ltd.
Kershaw, Leese & Co., Ltd.
Nagersheth (M.) Sons.
Rose (Sir W. A.) & Co., Ltd.

Cotton Wool

Imperial Patent Wadding Co., Ltd.
Vernon & Co., Ltd.

Cotton Yarns (*See "Yarns, Cotton."*)

Coumarin

May & Baker, Ltd.

Counter Grilles (*See "Desk Rails."*)

Counting Machines

Avery (W. & T.), Ltd.
Glover & Main, Ltd.

Couplings (*See "Clutches and Couplings."*)

Couplings, Electric

English Electric Co., Ltd.
General Electric Co., Ltd.
Stone (J.) & Co., Ltd.

Covers, Inspection & Manhole

(*See "Manhole Covers."*)

Cowls, Chimney

Braby (Frederick) & Co., Ltd.
Ludlow Bros. (1913), Ltd.

Crackers, Christmas

Batger & Co.
Pascall (James), Ltd.

Cramps & Clamps (Engineers', Boilermakers', &c.)

Cotterill (F. W.), Ltd.
Hooker (Peter), Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.

Cramps, Joiners'

Mountford (Fredk.) (Birmingham), Ltd.

Crane Motors, A.C.

Brush Electrical Engineering Co., Ltd.
Crompton & Co., Ltd.
Electric Construction Co., Ltd.
English Electric Co., Ltd.
General Electric Co., Ltd.
Greenwood & Batley, Ltd.
Hill (J. & P.).
Mather & Platt, Ltd.
Matthews & Yates, Ltd.
Metropolitan-Vicker's Electrical Co., Ltd.
Sandycroft, Ltd.
Vickers, Ltd.

Crane Motors, D.C.

Booth (Joseph) & Bros., Ltd.
Brush Electrical Engineering Co., Ltd.
Crompton & Co., Ltd.
Electric Construction Co., Ltd.
English Electric Co., Ltd.
General Electric Co., Ltd.
Greenwood & Batley, Ltd.
Hill (J. & P.).
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Mather & Platt, Ltd.
Matthews & Yates, Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Rees Roturbo Manufacturing Co., Ltd.
Vickers, Ltd.

Cranes, Electric

Armstrongs & Main, Ltd.
Armstrong (Sir W. G.), Whitworth & Co.
Arrol (Sir William) & Co., Ltd.
Berry (Henry) & Co., Ltd.
Booth (Joseph) & Bros., Ltd.
Clarke, Chapman & Co., Ltd.
Craven Bros. (Manchester), Ltd.
English Electric Co., Ltd.
General Electric Co., Ltd.
Holt & Willetts.
Metropolitan-Vickers Electrical Co., Ltd.
Ransomes & Rapier, Ltd.
Stothert & Pitt, Ltd.

Cranes, Hand

Alldays & Onions, Ltd.
Holt & Willetts.
Ransomes & Rapier, Ltd.
Youngs.

Cranes, Hydraulic

Armstrongs & Main, Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Arrol (Sir William) & Co., Ltd.
Berry (Henry) & Co., Ltd.
Craven Bros. (Manchester), Ltd.

Cranes, Hydraulic—*continued.*

Fielding & Platt, Ltd.
Glenfield & Kennedy, Ltd.
Hollings & Guest, Ltd.
Horseley Bridge & Engineering Co., Ltd.

Cranes, Locomotive

Berry (Henry) & Co., Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Hill (J. & P.).
Ransomes & Rapier, Ltd.
Stothert & Pitt, Ltd.
Vickers, Ltd.
Vulcan Foundry, Ltd.

Cranes, Steam

Arrol (Sir William) & Co., Ltd.
Berry (Henry) & Co., Ltd.
Booth (Joseph) & Bros., Ltd.
Clarke, Chapman & Co., Ltd.
Craven Bros. (Manchester), Ltd.
Horseley Bridge & Engineering Co., Ltd.
Ransomes & Rapier, Ltd.
Ruston & Hornsby, Ltd.
Stothert & Pitt, Ltd.

Crank Axles & Shafts

Armstrong (Sir W. G.), Whitworth & Co., Ltd
Beardmore (William) & Co., Ltd.
Bessemer (Henry) & Co., Ltd.
Brown, Bayley's Steel Works, Ltd.
Brown (John) & Co., Ltd.
Central Aircraft Co.
Clayton & Shuttleworth, Ltd.
Darlington Forge, Ltd.
Firth (Thos.) Sons, Ltd.
Garrett (Richard) & Sons, Ltd.
Gilbertson (W.) & Co., Ltd.
Jessop (William) & Sons, Ltd.
Jonas & Colver, Ltd.
Monk Bridge Iron & Steel Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Richards (J. H.) & Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.
Spencer (John) & Sons, Ltd.
Steel, Peech & Tozer, Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Vickers, Ltd.
White (E. T.) & Co.

Crapes, Mourning

Courtaulds, Ltd.
Emsley (J.) & Co., Ltd.
Grant & Co., Ltd.

Cream of Tartar

Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Cream of Tartar Substitutes

Boake (A.), Roberts & Co., Ltd.
Borax Consolidated, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Cream Separators *(See "Dairy Machinery.")*

Creases & Creasing Irons

(See "Hand Tools, Saddlers'.")

Creosote

Baird (William) & Co., Ltd.
Beardmore (William) & Co., Ltd.
Bell Bros., Ltd.
Dinnington Main Coal Co., Ltd.
Blaenavon Co., Ltd.
Brentford Gas Co.
British Dyestuffs Corporation, Ltd.
Brotherton & Co., Ltd.
Burt, Boulton & Haywood, Ltd.
Butler (William) & Co. (Bristol), Ltd.
Cooper (William) & Nephews.
Dorman, Long & Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Forbes, Abbott & Lennard, Ltd.
Gas Light & Coke Co.
Leitch (John W.) & Co.
Major & Co., Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
Newton, Chambers & Co., Ltd.
Redbourn Hill Iron & Coal Co., Ltd.
South Metropolitan Gas Co.
Staveley Coal & Iron Co., Ltd.

Cresol

British Dyestuffs Corporation, Ltd.
Brotherton & Co., Ltd.
Burt, Boulton & Haywood, Ltd.
Butler (William) & Co. (Bristol), Ltd.
Cooper (William) & Nephews.
Evans, Sons, Lescher & Webb, Ltd.
Major & Co., Ltd.
May & Baker, Ltd.
Newton, Chambers & Co., Ltd.
Redbourn Hill Iron & Coal Co., Ltd.

Cricket Accessories *(See "Sporting Goods.")*

Crockery *(See "Pottery" and "Chinaware.")*

Crossings, Railway

(See "Points and Crossings.")

Crowbars

Bayliss, Jones & Bayliss, Ltd.
Beardshaw (J.) & Son, Ltd.
Hadfields, Ltd.
Hardy Patent Pick Co., Ltd.
Jonas & Colver, Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
Osborn (Samuel) & Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.
Spencer (John) & Sons, Ltd.

Crucibles

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Doulton & Co., Ltd.
Monometer Manufacturing Co. (1918), Ltd.
Morgan Crucible Co., Ltd.

Cruets

(See "Silver-ware," and "Nickle-Plated Ware."

Crushing & Screening Plant

Allen (Edgar) & Co., Ltd.
Boby (Robert), Ltd.
Booth (Joseph) & Bros., Ltd.
Brinjes & Goodwin, Ltd.
Clayton, Son & Co., Ltd.
Hadfields, Ltd.

Crushing & Screening Plant—*continued.*

Hardy Patent Pick Co., Ltd.
Harvey (G. A.) & Co. (London), Ltd.
Head, Wrightson & Co., Ltd.
Holman, Bros., Ltd.
Marsden (H. R.), Ltd.
Osborn (Samuel) & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Plowright Bros., Ltd.
Robey & Co., Ltd.
Sandycroft, Ltd.
Sturtevant Engineering Co., Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Vickers, Ltd.

Cultivators (*See "Agricultural Machinery."*)

Culverts

Braby (Frederick) & Co., Ltd
Ludlow Bros. (1913), Ltd.
Mechans, Ltd.
Orr, Watt & Co., Ltd.
Westwood (Joseph) & Co., Ltd.

Cupolas (*See "Iron and Steel Works Plant."*)

Curtains (*See "Lace Goods, "Tapestries," and "Cotton Muslins, etc."*)

Curtain Fittings (*See "Brassfoundry."*)

Cushions, Air (*See "Rubber Beds, etc."*)

Custard Powder (*See "Eggs," etc.*)

Cutlery

Barker Bros. (Silversmiths), Ltd.
Collyer (John) & Co., Ltd.
Finnigans, Ltd.
Greener (W. W.), Ltd.
Kayser, Ellison & Co., Ltd.
Singleton & Priestman.
Walker & Hall, Ltd.

Cyanamide

Alby United Carbide Factories, Ltd.

Cyanide Plant

Mechans, Ltd.
Piggott (Thomas) & Co., Ltd.
Whessoe Foundry Co., Ltd.

Cyanides

Canning (W.) & Co.
Gas Light & Coke Co.
May & Baker, Ltd.
Thornley (Samuel), Ltd.

Cycles

Alldays & Onions, Ltd.
B.S A. Cycles, Ltd.
Components, Ltd.
Enfield Cycle Co., Ltd.
Explosives Trades, Ltd.
Humber, Ltd.
Humphries & Dawes, Ltd
Marston (John), Ltd.
New Hudson, Ltd.
Raleigh Cycle Co., Ltd.
Rudge-Whitworth, Ltd.
Sun Cycle & Fittings Co., Ltd
Swift of Coventry, Ltd

Cycle Accessories

(*See also "Tyres," "Horns," etc.*)

Avon India Rubber Co., Ltd.
Bates (W. & A.), Ltd.
Brooks (J. B.) & Co., Ltd.
Dover, Ltd.
Guest, Keen & Nettlefolds, Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Jenson & Nicholson, Ltd
Lucas (Joseph), Ltd.
Miller (H.) & Co., Ltd.
Mitchell (William) (Pens), Ltd.
Mountford (Fredk.) (Birmingham), Ltd
Tayler (D. F.) & Co., Ltd.
Terry (Herbert) & Sons, Ltd

Cycle Makers' Plant

Drummond Bros., Ltd.
Greenwood & Batley, Ltd.
Holroyd (John) & Co., Ltd

Cycle Parts

Abingdon Works, Ltd.
Accles & Pollock, Ltd.
Alldays & Onions, Ltd.
Brown (S. G.), Ltd.
Brooks (J. B.) & Co., Ltd.
B.S.A. Cycles, Ltd.
Components, Ltd.
Davis & Timmins, Ltd.
Enfield Cycle Co., Ltd.
Explosives Trades, Ltd.
Greener (W. W.) Ltd.
Humber Ltd.
Humphries & Dawes, Ltd.
Miller (H.) & Co , Ltd.
Mitchell (William) (Pens), Ltd.
Mountford (Frederick) (Birmingham), Ltd.
New Hudson, Ltd.
Pugh (Charles H.), Ltd.
Raleigh Cycle Co., Ltd.
Smith (Thomas) & Sons, of Saltley Ltd.
Sun Cycle & Fittings Co., Ltd.
Tayler (D. F.) & Co., Ltd.
Terry (Herbert) & Sons, Ltd.
Warne (William) & Co., Ltd.
Williams (Edward).

Cylinders, Gas-containing

Acetylene Corporation of Great Britain, Ltd
Armstrong (Sir W. G.), Whitworth & Co., Ltd
Braby (Frederick) & Co., Ltd.
British Mannesmann Tube Co., Ltd.
British Oxygen Co., Ltd.
Chesterfield Tube Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Projectile & Engineering Co., Ltd.
Stewarts & Lloyds, Ltd.

Cylinders, Water-circulating

Braby (Frederick) & Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
National Galvanizers, Ltd.

D

Dairy Machinery

Greenwood & Batley, Ltd.
Lister (R. A.) & Co., Ltd.
Wolseley Sheep Shearing Machine Co , Ltd.

Daisy Grubbers (*See "Hand Tools, Garden."*)

Davits (*See "Hoists, Boat."*)

Deed Boxes (*See "Japanned Ware."*)

Decorations, Interior

Jenson & Nicholson, Ltd.
Rowbotham (Thomas).
White, Allom & Co.

Dentists' Requisites

Maw (S.), Son & Sons, Ltd.

Dentifrices

Boots Pure Drug Co., Ltd
Bush (W. J.) & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Maw (S.), Son & Sons, Ltd.
May & Baker, Ltd.

Derricks

British Mannesmann Tube Co., Ltd.
Motherwell Bridge Co., Ltd.
Stewarts & Lloyds, Ltd.
Tees Side Bridge & Engineering Works, Ltd.

Desk Rails & Counter Grilles

Carron Company.
Harris & Sheldon, Ltd.
Singer (J. W.) & Sons, Ltd.

Desks (*See "Furniture."*)

Destroyers & Torpedo Boats

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Beardmore (William) & Co., Ltd.
Brown (John) & Co., Ltd.
Fairfield Shipbuilding & Engineering Co., Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Thornycroft (John I.) & Co., Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.
Yarrow & Co., Ltd.

Destructors, Refuse

Brightside Foundry & Engineering Co., Ltd.
Manlove, Alliott & Co., Ltd.

Detonators (*See "Fuses and Detonators."*)

Dextrine

Evans, Sons, Lescher & Webb, Ltd.

Diamond & Gem Cutting

Ginder & Ginder.

Diamorphine Hydrochloride

Evans. Sons, Lescher & Webb, Ltd
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Dichloramine T.

Boots Pure Drug Co., Ltd.
May & Baker, Ltd.

Die Castings

Aircraft Manufacturing Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Croft (A. J.) & Co., Ltd.
Darlington Forge, Ltd. (The).
Hadfields, Ltd.
Joseph (N. C.).
Monometer Manufacturing Co. (1918), Ltd.
Osborn (Samuel) & Co., Ltd.
Partington Steel & Iron Co., Ltd.
Pugh (Charles H.), Ltd.
Richards (J. H.) & Co., Ltd.
Sale (H. B.), Ltd.
Stone (J.) & Co., Ltd
Vickers, Ltd.
White (E. T.) & Co.

Dies, Cutting

Greenwood & Batley, Ltd.
Jonas & Colver, Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
Sale (H. B), Ltd.

Dies, Diamond

Bolton (Thomas) & Sons, Ltd.

Dies, Screw Cutting

(*See "Stocks and Dies."*)

Dies, Stamping

Albion Drop Forgings Co., Ltd.
Allen (Edgar) & Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd
Brown (John) & Co., Ltd.
Dickinson (John) & Co., Ltd.
Gilbertson (W.) & Co., Ltd.
Greenwood & Batley, Ltd.
Head, Wrightson & Co., Ltd.
Heywood (John), Ltd.
Jonas & Colver, Ltd.
Osborn (Samuel) & Co., Ltd
Sale (H. B.), Ltd.
Sanderson Bros. & Newbould, Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Turton Bros. & Matthews, Ltd.
Vickers, Ltd.

Diggers (*See "Excavators."*)

Dimethyl Sulphate

Evans, Sons, Lescher & Webb, Ltd.

Dinitrobenzene

British Dyestuffs Corporation, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Leitch (John W.) & Co.

Dinitrophenol

British Dyestuffs Corporation, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Leitch (John W.) & Co.
United Alkali Co., Ltd.

Dinitrotoluene

British Dyestuffs Corporation, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Leitch (John W.) & Co.

Dinner Services (*See "Pottery, etc."*)

Dish Covers, Wire (*See "Wire Goods."*)

Dish Covers, Tin (*See "Tinware."*)

Dishes (*See "Holloware," "Pottery," etc.*)

Disinfectants

Boake (A.), Roberts & Co., Ltd.
Boots Pure Drug Co., Ltd.
British Dyestuffs Corporation, Ltd.
Brotherton & Co., Ltd.
Burt, Boulton & Haywood, Ltd.
Butler (William) & Co. (Bristol), Ltd.
Cooper (William) & Nephews.
Evans, Sons, Lescher & Webb, Ltd.
Gas Light & Coke Co.
Gaunt & Hickman.
Jennings (George) Ltd.
Lawes Chemical Manure Co., Ltd.
Major & Co., Ltd.
May & Baker, Ltd.
Newton, Chambers & Co., Ltd.
Pearson (William) Ltd.
Snowdon Bros. & Co., Ltd.
United Alkali Co., Ltd.
United Turkey Red Co., Ltd.

Disinfectors

Brightside Foundry & Engineering Co., Ltd.
Manlove, Alliott & Co., Ltd.

Distempers

Clark (Robert Ingham) & Co., Ltd.
Docker Bros., Ltd.
International Paint & Compositions Co., Ltd.
Jenson, Nicholson, Ltd.
Orr's Zinc White, Ltd.
Rose (Sir W. A.) & Co., Ltd.

Distilling Plant

Brinjes & Goodwin, Ltd.
Chloride Electrical Storage Co., Ltd.
Holmes (W. C.) & Co., Ltd.
Manlove, Alliott & Co., Ltd.
Mirrlees, Watson Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Woodall, Duckham & Jones, Ltd.

Dock & Shipyard Plant

Armstrongs & Main, Ltd.
Arrol (Sir William) & Co., Ltd.
British Steel Piling Co.
Callender's Cable & Construction Co., Ltd.
Fielding & Platt, Ltd.
Holroyd (John) & Co., Ltd.
Holt & Willetts.
Motherwell Bridge Co., Ltd.
Ransomes & Rapier, Ltd.
Stothert & Pitt, Ltd.
Teeside Bridge & Engineering Works, Ltd.
Vickers. Ltd.
Wright (John & Edwin), Ltd.

Dock Gates

(See "Gates, Lock, Sluice or Dock.")

Docks, Floating

Armstrong (Sir W G.), Whitworth & Co., Ltd.
Motherwell Bridge Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Vickers, Ltd.

Door Furniture (Handles, Finger Plates, &c.), Brass & Copper

Harrison & Co.
Sankey (Joseph) & Sons, Ltd.

Door Furniture (Handles, Finger Plates, &c.), China & Glass

Bullers, Ltd.

Door Furniture (Handles, Finger Plates, &c.), Iron

Harrison & Co.
Remer (John) & Co., Ltd.

Doors, Metal

Aircraft Manufacturing Co. Ltd.
Braby (Frederick) & Co., Ltd.
Braithwaite & Co.
Crittall Manufacturing Co., Ltd.
Dawnay (Archibald D.) & Sons, Ltd.
Leeds Forge Co., Ltd.
Measures Bros. (1911), Ltd.
Mechans, Ltd.
Singer (J. W.) & Co., Ltd.
Tann (John), Ltd.

Doors, Spring

Terry (Herbert) & Sons, Ltd.

Door Stops, Rubber

(See "Rubber Goods, Moulded.")

Doors, Wooden

Bath Aircraft, Ltd.
Central Aircraft Co.
Grahame-White Co., Ltd.
Heywood (John), Ltd.
Lebus (Harris).
Remer (John) & Co., Ltd.
Vickers, Ltd.

Drain Cleaning Machines

Jennings (George), Ltd.
Stone (J.) & Co., Ltd.
Terry (Herbert) & Sons, Ltd.

Drain Pipes *(See "Pipes.")*

Drawer Handles, Knobs, &c.

(See "Brassfoundry" and "Ironmongery.")

Drawing Boards

Central Aircraft Co.
Cooke (T.) & Sons, Ltd.
Halden (J.) & Co., Ltd.
Hall (B. J) & Co., Ltd.
Pirie (Alex.) & Sons, Ltd.
Norton & Gregory, Ltd.
Setten & Durward.

Drawing Pins *(See "Pins, Drawing.")*

Dredging Plant

Allen (Edgar) & Co., Ltd.
Gwynnes, Ltd.
Head, Wrightson & Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Rose, Downs & Thompson, Ltd.
Short Bros. (Rochester & Bedford), Ltd.
Vickers, Ltd.
Westwood (Joseph) & Co., Ltd.
Wright (John & Edwin), Ltd.

Dredging Plant, Spares for

Allen (Edgar) & Co., Ltd.
Hadfields, Ltd.
Lloyd (F. H.) & Co., Ltd.
Osborn (Samuel) & Co., Ltd.

Dress Fabrics
(*See under "Cotton," "Silk" or "Woollen."*)

Dressings, Antiseptic and Surgical
(*See "Surgical Dressings."*)

Drifts, Boilermakers' & Engineers'
(*See "Punches."*)

Drilling Machines, Radial
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Associated British Machine Tool Makers, Ltd.
Craven Bros. (Manchester), Ltd.
Drummond Bros., Ltd.
Haighs (Oldham), Ltd.
Holroyd (John) & Co., Ltd.
Jones (A. A.) & Shipman, Ltd.
Selson Engineering Co., Ltd

Drills, Agricultural
Agricultural & General Engineers, Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Ruston & Hornsby, Ltd.
Sanderson Bros. & Newbould, Ltd.

Drills, Combination Centre
Jones (A. A.) & Shipman, Ltd.
Sanderson Bros. & Newbould, Ltd.
Vickers, Ltd.

Drills, Electrically Driven
General Electric Co., Ltd.
Greenwood & Batley, Ltd.

Drills, Hand & Breast (Carpenters')
Sanderson Bros. & Newbould, Ltd.

Drills, Hand & Breast (Engineers')
Sanderson Bros. & Newbould, Ltd.

Drills, Rock
Andrew (Jno. Hy.) & Co., Ltd.
Balfour (Arthur) & Co., Ltd.
Climax Rock Drill & Engineering Works, Ltd.
Hardy Patent Pick Co., Ltd.
Holman Bros., Ltd.
Osborn (Samuel) & Co., Ltd.

Drill, Steel (*See "Steel, Tool."*)

Drilling Machines (Metal)
(*See "Boring and Drilling Machines."*)

Drills, Twist, Engineers'
Allen (Edgar) & Co., Ltd.
Andrew (Jno. Hy.) & Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Associated British Machine Tool Makers, Ltd.
Balfour (Arthur) & Co., Ltd.
Beardshaw (J.) & Son, Ltd.
Brown (John) & Co., Ltd.
English Electric Co., Ltd.
Firth (Thos.) & Sons, Ltd.
Jonas & Colver, Ltd.
Osborn (Samuel) & Co., Ltd.
Sanderson Bros. & Newbould, Ltd
Turton Bros. & Matthews, Ltd.
Vickers, Ltd.

Drop Forging Plant
Alldays & Onions, Ltd.
Greenwood & Batley, Ltd.

Drop Forgings (*See "Forgings."*)

Drop Hammers (*See "Hammers, Power."*)

Druggists' Sundries
Eno (J. C.), Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Maw (S.), Son & Sons, Ltd.
Simpson (William) (Manchester), Ltd.
Warne (William) & Co., Ltd.

Drugs, Pharmaceutical
Boake (A.), Roberts & Co., Ltd.
Boots Pure Drug Co., Ltd.
British Drug Houses, Ltd.
British Dyestuffs Corporation, Ltd.
Eno (J. C.), Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Drums, Kegs & Cans, Iron & Steel
Baldwins, Ltd.
Berger (Lewis) & Sons, Ltd.
Braby (Frederick) & Co., Ltd.
Braime (T. F.) & Co., Ltd.
International Paint & Compositions Co., Ltd.
Ludlow Bros. (1913), Ltd.
National Galvanisers, Ltd.
Steel Barrel Co., Ltd.
Todd, Bros.
Valor Co., Ltd.

Dryers, Paint & Varnish
Banner (Samuel) & Co., Ltd.
Berger (Lewis) & Sons, Ltd.
Clark (Robert Ingham) & Co., Ltd.
Docker Bros., Ltd.
International Paint & Compositions Co. Ltd.
Jenson, Nicholson, Ltd.
Rose (Sir W. A.) & Co., Ltd.

Drying Plant
Ashwell & Nesbit, Ltd.
Bridge (David) & Co., Ltd.
Brightside Foundry & Engineering Co., Ltd.
Brinjes & Goodwin, Ltd.
Cradley Boiler Co., Ltd.
Davidson & Co., Ltd.
Manlove, Alliott & Co., Ltd.
Matthews & Yates, Ltd.
Musgrave & Co., Ltd.
Newell (Ernest) & Co., Ltd.
Pulsometer Engineering Co., Ltd.
Sturtevant Engineering Co., Ltd.

Drysaltery
Canning (W.) & Co.
Coleman & Appleby, Ltd.
May & Baker, Ltd.
Simpson (William) (Manchester), Ltd.

Ducks & Drills (*See "Cotton Goods."*)

Dumb Bells
Carron Company.
Terry (Herbert) & Sons, Ltd.
Remer (John) & Co., Ltd.

Duplicating Machines
Roneo, Ltd.

Dust-bins (*See "Galvanized Iron Goods."*)

Dust & Fume Extracting Plant

Alldays & Onions, Ltd.
Brightside Foundry & Engineering Co., Ltd.
Head, Wrightson & Co., Ltd.
Matthews & Yates, Ltd.
Musgrave & Co., Ltd.
Sturtevant Engineering Co., Ltd.

Dust Pans (*See "Tinware."*)

Dutch Ovens (*See "Tinware."*)

Dyeing

Bradford Dyers' Association, Ltd.
Bright (John) & Bros., Ltd.
Clay (Robert), Ltd.
English Velvet & Cord Dyers' Association, Ltd.
Fine Cotton & Doublers' Association, Ltd.
Foster (John) & Son, Ltd.
Hawley (A. E.) & Co., Ltd.
Howlett & White, Ltd.
Kershaw & Abell.
Langworthy Bros. & Co., Ltd.
Lye (T.) & Sons.
Mandelberg (J.) & Co., Ltd
Salt (Sir Titus) Bart., Sons & Co., Ltd.
United Turkey Red Co., Ltd.
Wilkinson (John).

Dyeing Appliances

Brinjes & Goodwin, Ltd.
Piggott (Thomas) & Co , Ltd.
Pugh (Charles H.), Ltd.

Dyeing Machinery

Brinjes & Goodwin, Ltd.
Manlove, Alliott & Co., Ltd.
Mather & Platt, Ltd.
Piggott (Thomas) & Co., Ltd.

Dyeing, Straw Plait

Hubbard (Stewart).
Lye (T.) & Sons.

Dye Intermediates

Baird (Wm.) & Co., Ltd.
British Dyestuffs Corporation, Ltd
Burt, Boulton & Haywood, Ltd.
Brotherton & Co., Ltd.
Castner-Kellner Alkali Co., Ltd.
Gas Light & Coke Co.
Leitch (John W.) & Co.
Major & Co., Ltd.
South Metropolitan Gas Co.

Dyes & Dyeing Materials

Batchelor, Robinson & Co., Ltd.
British Cotton & Wool Dyers' Association, Ltd.
British Dyestuffs Corporation, Ltd.
Brotherton & Co., Ltd
Leitch (John W.) & Co.
Lye (T.) & Sons.
Major & Co., Ltd.
Sharp (J. B. & W. R.), Ltd.
United Alkali Co., Ltd.
Wolsey, Ltd.

Dyestuffs, Synthetic

British Dyestuffs Corporation, Ltd.
Brotherton & Co., Ltd.
Leitch (John W.) & Co.
Major & Co., Ltd.
Sharp (J. B. & W. R.), Ltd

Dynamite (*See "Explosives."*)

Dynamometers (*See "Instruments, Electric."*)

Dynamos (*See "Electric Generators."*)

E

Ear Markers (*See "Pliers."*)

Earthenware, Table & Domestic (*See "Pottery."*)

Earthenware, Sanitary (*See "Sanitary Fittings."*)

Earth Rammers (*See "Castings, Iron."*)

Eau-de-Cologne

Boots Pure Drug Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Maw (S.), Son & Sons, Ltd.

Ebonite

India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Macintosh (Chas.) & Co., Ltd.
North British Rubber Co., Ltd.

Edging Irons (*See "Hand Tools, Garden."*)

Eggs, Dried, Egg Powder & Custard Powder

Boots Pure Drug Co., Ltd.
Globe Refining Co., Ltd.
Simpson (William) (Manchester), Ltd.
Watford Manufacturing Co., Ltd.

Eggs, Liquid & Frozen

Globe Refining Co., Ltd.

Ejectors

Gresham & Craven, Ltd.
Gwynnes, Ltd.
Hopkinson (J.) & Co., Ltd.
Jennings (George), Ltd.
Mirrlees, Watson Co., Ltd.
Mechans, Ltd.
United Brassfounders & Engineers, Ltd.

Ejectors, Pneumatic

Gresham & Craven, Ltd
Jennings (George).
Manlove, Alliott & Co., Ltd.
Stone (J.) & Co., Ltd.

Elastic Bands

India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Macintosh (Chas.) & Co., Ltd.
North British Rubber Co., Ltd.
Vickers, Ltd.
Warne (William) & Co., Ltd.

Electrical Accessories for Power, Lighting, Bells, Signalling, &c.

British Insulated & Helsby Cables, Ltd.
Callender's Cable & Construction Co., Ltd.
Chloride Electrical Storage Co., Ltd.
Consolidated Signal Co., Ltd.
Davis & Timmins, Ltd.
Duram, Ltd.

Electrical Accessories for Power, Lighting, Bells, Signalling, &c.—*continued*

Edison Swan Electric Co., Ltd.
Electro-Mechanical Brake Co., Ltd.
Ellison (George).
English Electric Co., Ltd.
General Electric Co., Ltd.
Glover (W. T.) & Co., Ltd.
Harrison & Co.
Henley's (W. T.) Telegraph Works Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Matthews & Yates, Ltd.
Sterling Telephone & Electric Co., Ltd.
Stone (J.) & Co., Ltd.
Suckling, Ltd.
Telephone Manufacturing Co., Ltd.
Tucker (J. H.) & Co., Ltd.
Vandervell (C. A.) & Co., Ltd.

Electrical Instruments

(*See "Instruments, Electric."*)

Electric Arc Lamps

General Electric Co., Ltd.
Hall (B. J.) & Co., Ltd.
Johnson & Phillips, Ltd.

Electric Accumulators

Callender's Cable & Construction Co., Ltd.
Chloride Electrical Storage Co., Ltd.
Edison Swan Electric Co., Ltd.
Greenwood & Batley, Ltd.
Hart Accumulator Co., Ltd.
Lucas (Joseph), Ltd.
Smith (S.) & Sons (Motor Accessories), Ltd.
Sterling Telephone & Electric Co., Ltd.
Stone (J.) & Co., Ltd.
Vandervell (C. A.) & Co., Ltd.

Electric Batteries, Primary

British Insulated & Helsby Cables, Ltd.
Edison Swan Electric Co., Ltd.
English Electric Co., Ltd.
General Electric Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Sterling Telephone & Electric Co., Ltd.

Electric Condensers

(*See "Condensers, Electric."*)

Electric Elevators

(*See "Lifts and Elevators."*)

Electric Flash Lamps

Chloride Electrical Storage Co., Ltd
Edison Swan Electric Co., Ltd.
English Electric Co., Ltd.
General Electric Co., Ltd.
Greenwood & Batley, Ltd.
Metropolitan-Vickers Electrical Co., Ltd.

Electric Generators, A.C.

Brook (E.), Ltd.
Brush Electrical Engineering Co., Ltd.
Canning (W.) & Co.
Crompton & Co., Ltd.
Edison Swan Electric Co., Ltd.
English Electric Co., Ltd.
Electric Construction Co., Ltd.
General Electric Co., Ltd.
Greenwood & Batley, Ltd.
Mather & Platt, Ltd.
Matthews & Yates, Ltd.
Metropolitan-Vickers Electrical Co., Ltd
Parsons (C. A.) & Co., Ltd.
Sandycroft, Ltd.

Electric Generators, D.C.

Allen (W. H.), Sons & Co., Ltd.
Brush Electrical Engineering Co., Ltd.
Canning (W.) & Co.
Clarke, Chapman & Co., Ltd.
Coleman & Appleby, Ltd.
Crompton & Co., Ltd.
Edison Swan Electric Co., Ltd.
Electric Construction Co., Ltd.
English Electric Co., Ltd.
General Electric Co., Ltd.
Greenwood & Batley, Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Mather & Platt, Ltd.
Matthews & Yates, Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Parsons (C. A.) & Co., Ltd.
Rees Roturbo Manufacturing Co., Ltd

Electric Generators, D.C. (Motor Car & Motor Cycle)

English Electric Co., Ltd.
Greenwood & Batley, Ltd.
Lucas (Joseph), Ltd.
Vandervell (C. A.) & Co., Ltd.
Vickers, Ltd.

Electric Heating & Cooking Apparatus

British Electric Transformer Co., Ltd.
Carron Company.
Edison Swan Electric Co., Ltd.
English Electric Co., Ltd.
General Electric Co., Ltd.
Joseph (N. C.).
Metropolitan-Vickers Electrical Co., Ltd.
Smith & Wellstood, Ltd.

Electric Lighting Plant

Agricultural & General Engineers, Ltd.
Aircraft Manufacturing Co., Ltd.
Allen (W. H.), Sons & Co., Ltd.
Austin Motor Co., Ltd.
Brush Electrical Engineering Co., Ltd.
Chloride Electrical Storage Co., Ltd.
Clarke, Chapman & Co., Ltd.
Crompton & Co., Ltd.
Edison Swan Electric Co., Ltd.
Ellison (George).
English Electric Co., Ltd.
General Electric Co., Ltd.
Greenwood & Batley, Ltd.
Hooker (Peter), Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Lister (R. A.) & Co., Ltd.
Mather & Platt, Ltd.
Matthews & Yates, Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Parsons (C. A.) & Co., Ltd.
Thornycroft (John I.) & Co., Ltd.
Tilling Stevens, Ltd.
Vandervell (C. A.) & Co., Ltd.
Wolseley Sheep Shearing Machine Co., Ltd.

Electric Lighting Plant, Railway Carriage
Chloride Electrical Storage Co., Ltd.
Edison Swan Electric Co., Ltd.
English Electric Co., Ltd.
General Electric Co., Ltd.
Greenwood & Batley, Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Mather & Platt, Ltd.
Smith (S.) & Sons (Motor Accessories), Ltd.
Stone (J.) & Co., Ltd.

Electric Meters (*See "Meters, Electric."*)

Electric Mining Haulage
(*See "Mining Haulage, Electric."*)

Electric Testing Sets
General Electric Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Johnson & Phillips, Ltd.
Metropolitan-Vickers Electrical Co., Ltd.

Electric Welding Apparatus
British Insulated & Helsby Cables, Ltd.
Clarke, Chapman & Co., Ltd.
Crompton & Co., Ltd.
English Electric Co., Ltd.
General Electric Co., Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Telegraph Construction & Maintenance Co., Ltd.
Tilling-Stevens Motors, Ltd.

Electrodes
Alby United Carbide Factories, Ltd.
Blackwell (Robert W.) & Co., Ltd.
General Electric Co., Ltd.
Hydrogen, Oxygen & Plant Co., Ltd.
Marconi's Wireless Telegraph Co., Ltd.
Vickers, Ltd.

Electro-hydraulic Machinery
Armstrong (Sir W G.), Whitworth & Co., Ltd.
Berry (Henry) & Co., Ltd.
Blakeborough (J.) & Sons, Ltd.
Boving & Co., Ltd.
Brush Electrical Engineering Co., Ltd.
English Electric Co., Ltd.
General Electric Co., Ltd.
Hollings & Guest, Ltd.

Electro-medical Apparatus
Duram, Ltd.
General Electric Co., Ltd.

Electro-plated Ware
(*See "Silver-ware" & "Nickel-plated Ware."*)

Electro-platers' Chemicals
Canning (W.) & Co.
Coleman & Appleby, Ltd.
John Matthey & Co., Ltd.
May & Baker, Ltd.

Electro-plating Machinery
Canning (W.) & Co.
Coleman & Appleby, Ltd.
Electric Construction Co., Ltd.
English Electric Co., Ltd.
Matthews & Yates, Ltd.

Elevators, Passenger
(*See "Lifts & Elevators."*)

Elevators (Grain, Freight, &c.)
(*See "Conveyors."*)

Embroideries
Brown (John S.) & Sons, Ltd.

Emery, Sand-paper, &c. (*See "Abrasives."*)

Emery Wheels (*See "Abrasive Wheels."*)

Emetine & Salts
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Enamelled Ware
Bulpitt & Sons, Ltd.
Collins (Christopher), Ltd.
Glover & Main, Ltd.
Hancock, Corfield & Waller, Ltd.
Ludlow Bros. (1913), Ltd.
National Galvanizers, Ltd.
Sankey (Joseph) & Sons, Ltd.
Welsh Tinplate & Metal Stamping Co., Ltd.

Enamellers' Chemicals
Borax Consolidated, Ltd.
May & Baker, Ltd.

Enamelled Tablets & Signs
(*See "Signs & Tablets, Advertising."*)

Enamels (*See "Varnishes & Enamels."*)

Enemas
Cow (P. B.) & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Ingram (J. G.) & Son, Ltd.
Maw (S.), Son & Sons, Ltd.
Warne (William) & Co., Ltd

Engineers' Tools
(*See "Hand Tools, Engineers' and Fitters'."*)

Engine Packings
(*See "Packings, Jointing Materials, etc."*)

Engines (Aero) (*See "Aeroplane Engines."*)

Engines, Crude Oil
Agricultural & General Engineers, Ltd.
Allen (W. H.), Sons & Co., Ltd.
Beardmore (William) & Co., Ltd.
Blackstone & Co., Ltd.
Clayton & Shuttleworth, Ltd.
Crossley Bros., Ltd.
Davey, Paxman & Co., Ltd.
Fielding & Platt, Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Hick, Hargreaves & Co., Ltd.
Marshall, Sons & Co., Ltd.
Mirrlees, Bickerton & Day, Ltd.
North Eastern Marine Engineering Co., Ltd.
Petters, Ltd. & Vickers, Petters, Ltd.
Ransomes, Sims & Jefferies, Ltd.
Robey & Co., Ltd.
Ruston & Hornsby, Ltd
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.

Engines, Diesel
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Beardmore (William) & Co., Ltd.
English Electric Co., Ltd.
Fairfield Shipbuilding & Engineering Co., Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Hick, Hargreaves & Co., Ltd.

Engines, Diesel—*continued.*
Mirrlees, Bickerton & Day, Ltd.
North British Diesel Engine Works, Ltd.
North Eastern Marine Engineering Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Petters, Ltd. & Vickers, Petters, Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.
Yarrow & Co., Ltd.

Engines, Fire (*See "Fire Engines."*)

Engines, Gas (*See "Gas Engines."*)

Engines, High Speed Steam
Agricultural & General Engineers, Ltd.
Allen (W. H.), Sons & Co., Ltd.
Beardmore (William) & Co., Ltd.
Clarke, Chapman & Co., Ltd.
Davey, Paxman & Co., Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Garrett (Richard) & Sons, Ltd.
Holman Bros., Ltd.
Musgrave & Co., Ltd.
North Eastern Marine Engineering Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Parsons' Marine Steam Turbine Co., Ltd.
Ransomes, Sims & Jefferies, Ltd.
Robey & Co., Ltd.
Sturtevant Engineering Co., Ltd.
Thornycroft (John I.) & Co., Ltd.
White (J. Samuel) & Co., Ltd.
Yarrow & Co., Ltd.

Engines, Hoisting (*See "Hoists."*)

Engines, Hydraulic (*See "Hydraulic Engines."*)

Engines, Locomotive (*See "Locomotives."*)

Engines, Marine
Agricultural & General Engineers, Ltd.
Allen (W. H.), Sons & Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Beardmore (William) & Co., Ltd.
Blackstone & Co., Ltd.
Carron Company.
Davey, Paxman & Co., Ltd.
Fairfield Shipbuilding & Engineering Co., Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Markham & Co., Ltd.
North British Diesel Engine Works, Ltd.
North Eastern Marine Engineering Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Parsons' Marine Steam Turbine Co., Ltd.
Petters, Ltd. & Vickers, Petters, Ltd.
Thornycroft (John I.) & Co., Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.
Wolseley Motors, Ltd.
Yarrow & Co., Ltd.

Engines, Motor Car
Aircraft Manufacturing Co., Ltd.
Beardmore (William) & Co., Ltd.
Daimler Co., Ltd.
Gwynnes, Ltd.
Hooker (Peter), Ltd.
Robinhood Engineering Works, Ltd.
Sizaire-Berwick, Ltd.
Tilling Stevens, Ltd.
Tylor (J.) & Sons, Ltd.
Vickers, Ltd.
White (E. T.) & Co.
White & Poppe, Ltd.

Engines, Motor Cycle
Abingdon Works, Ltd.
Aircraft Manufacturing Co., Ltd.
Alldays & Onions, Ltd.
Barr & Stroud, Ltd.
Hooker (Peter), Ltd.
Martinsyde, Ltd.
Mountford (Frederick) (Birmingham), Ltd.
Raleigh Cycle Co., Ltd.
Sun Cycle & Fittings Co., Ltd.
Vickers, Ltd.

Engines, Oil
Agricultural & General Engineers, Ltd.
Allen (W. H.), Sons & Co., Ltd.
Beardmore (William) & Co., Ltd.
Blackstone & Co., Ltd.
Bristol Wagon & Carriage Works Co., Ltd.
Clayton & Shuttleworth, Ltd.
Crossley Bros., Ltd.
Davey, Paxman & Co., Ltd.
Hick, Hargreaves & Co., Ltd.
Lister (R. A.) & Co., Ltd.
Marshall, Sons & Co., Ltd.
National Gas Engine Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Petters, Ltd. & Vickers, Petters, Ltd.
Ransomes, Sims & Jefferies, Ltd.
Ruston & Hornsby, Ltd.
Thornycroft (John I.) & Co., Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.
Yarrow & Co., Ltd.

Engines, Petrol & Benzine
Agricultural & General Engineers, Ltd.
Aircraft Manufacturing Co., Ltd.
Allen (W. H.), Sons & Co., Ltd.
Barr & Stroud, Ltd.
Beardmore (William) & Co., Ltd.
Blackstone & Co., Ltd.
Bristol Aeroplane Co., Ltd.
Bristol Wagon & Carriage Works Co., Ltd.
Crossley Bros., Ltd.
Davey, Paxman & Co., Ltd.
Fielding & Platt, Ltd.
Greener (W. W.), Ltd.
Hooker (Peter), Ltd.
Lister (R. A.) & Co., Ltd.
Maudslay Motor Co., Ltd.
National Gas Engine Co., Ltd.
Petters, Ltd. & Vickers, Petters, Ltd.
Ruston & Hornsby, Ltd.
Sizaire-Berwick, Ltd.
Thornycroft (John I.) & Co., Ltd.
Tylor (J.) & Sons, Ltd.
White (E. T.) & Co.
White (J. Samuel) & Co., Ltd.
White & Poppe, Ltd.
Tilling-Stevens Motors, Ltd.
Wolseley Sheep Shearing Machine Co., Ltd
Yarrow & Co., Ltd.

Engines, Ploughing
Agricultural & General Engineers, Ltd.
Alldays & Onions, Ltd.
Clayton & Shuttleworth, Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Hill (J. & P.).
MacLaren (J. & H.), Ltd.
Marshall, Sons & Co., Ltd.
Ransomes, Sims & Jefferies, Ltd.

Engines, Portable

Agricultural & General Engineers, Ltd.
Allen (W. H.), Sons & Co., Ltd.
Blackstone & Co., Ltd.
Clayton & Shuttleworth, Ltd
Davey, Paxman & Co., Ltd.
Fowler (John) & Co. (Leeds.), Ltd.
Garrett (Richard) & Sons, Ltd.
Lister (R. A.) & Co., Ltd.
Marshall, Sons & Co., Ltd.
Petters, Ltd. & Vickers, Petters, Ltd.
Ransomes, Sims & Jefferies, Ltd.
Robey & Co., Ltd.
Ruston & Hornsby, Ltd.
Thornycroft (John I.) & Co., Ltd.
Vickers, Ltd.

Engines, Semi-Diesel

Agricultural & General Engineers, Ltd.
Allen (W. H.), Sons & Co., Ltd.
Beardmore (William) & Co., Ltd.
Blackstone & Co , Ltd.
Clayton & Shuttleworth, Ltd.
Crossley Bros., Ltd.
Fielding & Platt, Ltd.
Marshall, Sons & Co., Ltd.
Petters, Ltd. & Vickers, Petters, Ltd.
Ransomes, Sims & Jefferies, Ltd.
Robey & Co., Ltd.
Ruston & Hornsby, Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.

Engines, Steam, Stationary

Agricultural & General Engineers, Ltd.
Allen (W. H.), Sons & Co., Ltd.
Beardmore (William) & Co., Ltd.
Clayton & Shuttleworth, Ltd.
Davey, Paxman & Co., Ltd.
Fairbairn Lawson Combe Barbour, Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Garrett (Richard) & Sons, Ltd.
Glenfield & Kennedy, Ltd.
Hick, Hargreaves & Co., Ltd.
Holman Bros., Ltd.
Holroyd (John) & Co., Ltd
Manlove, Alliott & Co., Ltd.
Markham & Co., Ltd.
Marshall, Sons & Co., Ltd.
Robey & Co., Ltd.
Ransomes, Sims & Jefferies, Ltd.
Ruston & Hornsby, Ltd.
Sandycroft, Ltd.
White (J. Samuel) & Co., Ltd.
Yates & Thom, Ltd.

Engines, Traction

(See "Tractors and Traction Engines.")

Engines, Turbine *(See "Turbines, etc.")*

Engines, Winding

(See "Winding Machinery.")

Engraving, Bank Note, Postage Stamp, &c.

Chorley & Pickersgill, Ltd.
Tillotson & Son, Ltd.
Waterlow & Sons Ltd.
Witherby & Co.

Envelopes, Paper

Cooke (Alf.), Ltd
Dickinson (John) & Co., Ltd.
Heywood (John), Ltd.
Macniven & Cameron, Ltd.
Millington & Sons, Ltd.
Pirie (Alex.) & Sons, Ltd.
Sinclair (William) & Sons (Stationers), Ltd.
Spicer (James) & Sons, Ltd
Waterlow & Sons Ltd.
Witherby & Co.

Epsom Salts *(See "Magnesium Sulphate.")*

Erasers, Rubber

Cow (P. B.) & Co., Ltd.
Greengate & Irwell Rubber Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Ingram (J. G.) & Son, Ltd.
Macintosh (Chas.) & Co., Ltd.
North British Rubber Co., Ltd.
Norton & Gregory, Ltd.
Warne (William) & Co., Ltd.

Escutcheon Pins

(See "Nails and Tacks, Wire.")

Essences, Flavouring

Boake (A.), Roberts & Co., Ltd.
British Drug Houses, Ltd.
Bush (W. T.) & Co., Ltd.
Crosse & Blackwell (Mfg. Co.), Ltd.
Duckworth & Co.
Evans, Sons, Lescher & Webb, Ltd.
Maconochie Bros., Ltd.
May & Baker, Ltd.
Simpson (William) (Manchester), Ltd.

Essential Oils *(See "Oils, Essential.")*

Esters

Boake (A.), Roberts & Co., Ltd.
British Drug Houses, Ltd.
Bush (W. J.) & Co., Ltd.
May & Baker, Ltd.

Ether

Explosives Trades, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Ethyl Chlorides

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Ethyl Morphine Hydrochlor.

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Ethylene Chloride

May & Baker, Ltd.
Castner-Kellner Alkali Co., Ltd.

Evaporators

Brinjes & Goodwin, Ltd.
Brightside Foundry & Engineering Co., Ltd.
Manlove, Alliott & Co., Ltd.
Mirrlees, Watson Co., Ltd.
North Eastern Marine Engineering Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Rees Roturbo Manufacturing Co., Ltd.

Excavators
Rose, Downs & Thompson, Ltd.
Ruston & Hornsby, Ltd.
Markham & Co., Ltd.
Westwood (Joseph) & Co., Ltd.

Excavators, Spares for
Berry (Henry) & Co., Ltd.
Hadfields, Ltd.

Exhausters
Alldays & Onions, Ltd.
Brinjes & Goodwin.
Donkin (Bryan) & Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Musgrave & Co., Ltd.
Parsons (C. A.) & Co., Ltd.
Sturtevant Engineering Co., Ltd.

Expanded Metal
Ludlow Bros. (1913), Ltd.

Expansion Joints (Steam, Gas & Water)
Ashwell & Nesbit, Ltd.
Bell's United Asbestos Co., Ltd.
Bibby (John), Sons & Co. (Garston), Ltd.
Blakeborough (J.) & Sons, Ltd.
Brightside Foundry & Engineering Co., Ltd.
Glenfield & Kennedy, Ltd.
Hopkinson (J.) & Co., Ltd.
Mechans, Ltd.
Piggott (Thomas) & Co., Ltd.
Russell (John) & Co., Ltd.
Spencer (John), Ltd.
Stanton Ironworks Co., Ltd.
Stewarts & Lloyds, Ltd.
Stone (J.) & Co., Ltd.
Turner Bros. Asbestos Co., Ltd.
United Brassfounders & Engineers, Ltd.

Explosives
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
British Dyestuffs Corporation, Ltd.
Chilworth Gunpowder Co., Ltd
Explosives Trades, Ltd.
Leitch (John W.) & Co.

Explosives Plant
Brinjes & Goodwin, Ltd.
Explosives Trades, Ltd.
Holman Bros., Ltd.
Manlove, Alliott & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Woodall, Duckham & Jones (1920), Ltd.

Extinguishers, Fire
(*See "Fire Extinguishers."*)

Extruded Metals
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Bolton (Thomas) & Sons, Ltd.
Booth (James) & Co. (1915), Ltd.
British Aluminium Co., Ltd.
British Insulated & Helsby Cables, Ltd.
Delta Metal Co., Ltd.
Explosives Trades, Ltd.
Johnson, Matthey & Co., Ltd.
McKechnie Bros.. Ltd.
Stone (J.) & Co., Ltd.
United Brassfounders & Engineers, Ltd.

Extruding Plant
Berry (Henry) & Co., Ltd.
Davy Bros., Ltd.
Fielding & Platt, Ltd.
Hollings & Guest, Ltd.

Eyeglasses & Magnifying Glasses
Maw (S.), Son & Sons, Ltd.

Eyelets
Smith (John), Ltd

F

Fanlight Gearing
Holroyd (John) & Co., Ltd.
Metropolitan-Vickers Electrical Co., Ltd.

Fans, Electrical, Ceiling
Allen (W. H.), Sons & Co., Ltd.
British Insulated & Helsby Cables, Ltd.
Bulpitt & Sons, Ltd.
Crompton & Co., Ltd.
Edison Swan Electric Co., Ltd.
English Electric Co., Ltd.
General Electric Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Stone (J.) & Co., Ltd.
Vickers, Ltd.

Fans, Electrical, Desk & Wall
British Insulated & Helsby Cables, Ltd.
Bulpitt & Sons, Ltd.
Edison Swan Electric Co., Ltd.
English Electric Co., Ltd.
General Electric Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Musgrave & Co., Ltd.
Stone (J.) & Co., Ltd.
Sturtevant Engineering Co., Ltd.
Vickers, Ltd.

Fans, Exhaust
Alldays & Onions, Ltd.
Allen (W. H.), Sons & Co., Ltd.
Ashwell & Nesbit, Ltd.
Bulpitt & Sons, Ltd.
Davidson & Co., Ltd.
Edison Swan Electric Co., Ltd.
English Electric Co., Ltd.
Explosives Trades, Ltd.
General Electric Co., Ltd.
Lye (T.) & Sons.
Matthews & Yates, Ltd.
Musgrave & Co., Ltd.
Parsons (C. A.) & Co., Ltd.
Simon (Henry), Ltd.
Sturtevant Engineering Co., Ltd.
Vickers, Ltd.

Fans, Gas
Alldays & Onions, Ltd.
Davidson & Co., Ltd.
Donkin (Bryan) & Co., Ltd.
Musgrave & Co., Ltd.
Parsons (C. A.) & Co., Ltd.
Sturtevant Engineering Co., Ltd.

Fans, Mine

Alldays & Onions, Ltd.
Davidson & Co., Ltd.
General Electric Co., Ltd.
Matthews & Yates, Ltd.
Musgrave & Co., Ltd.
Parsons (C. A.) & Co., Ltd.
Sturtevant Engineering Co., Ltd.

Farriers' Knives (*See "Knives."*)

Farriers' Tools (*See "Hand Tools."*)

Feed Water Appliances

Brightside Foundry & Engineering Co., Ltd.
Clarke, Chapman & Co., Ltd.
Matthews & Yates, Ltd.
North Eastern Marine Engineering Co., Ltd.
Pulsometer Engineering Co., Ltd.
United Brassfounders & Engineers, Ltd.
Vickers, Ltd.
Weir (G. & J.) Ltd.

Felts

Anderson (D.) & Son, Ltd.
Canning (W.) & Co.
Porritts & Spencer, Ltd.

Felt, Roofing

Anderson (D.) & Son, Ltd.
Blackwell (Robert W.) & Co., Ltd.
Piggott Bros. & Co., Ltd.
Turner Bros. Asbestos Co., Ltd.
Vulcanite, Ltd.

Fencing & Gates, Steel & Iron

Armstrongs & Main, Ltd.
Bain (William) & Co., Ltd.
Bayliss, Jones & Bayliss, Ltd.
Braby (Frederick) & Co., Ltd.
Carron Company.
Measures Bros. (1911), Ltd.
Morton (Francis) & Co., Ltd.
Newton, Chambers & Co., Ltd.
Singer (J. W.) & Sons, Ltd.
Stewarts & Lloyds, Ltd.

Fenders (*See "Furniture, Hearth."*)

Ferro-Chrome

Alby United Carbide Factories, Ltd.
Blackwell (George G.), Sons & Co., Ltd.
Explosives Trades, Ltd.
Murex Co., Ltd.

Ferro-Manganese

Dorman, Long & Co., Ltd.
Explosives Trades, Ltd.
Workington Iron & Steel Co., Ltd.

Ferro-Molybdenum

Blackwell (George G.), Sons & Co., Ltd.
Explosives Trades, Ltd.

Ferro-Tungsten

Blackwell (George G.), Sons & Co., Ltd.
Explosives Trades, Ltd.
Murex Co., Ltd.

Fertilizers

Aberdeen Comb Works Co., Ltd.
Alby United Carbide Factories, Ltd.
Anglo-Persian Oil Co., Ltd.
Brotherton & Co., Ltd.
Cargo Fleet Iron Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Lawes' Chemical Manure Co., Ltd.
Silcock (R.) & Sons, Ltd.
United Alkali Co., Ltd.

Ferrules, Boiler Tube

Accles & Pollock, Ltd.
Beardshaw (J.) & Son, Ltd.
Bolton (Thomas) & Sons, Ltd
Bullers, Ltd.
Bulpitt & Sons, Ltd.
Cradley Boiler Co., Ltd.
Explosives Trades, Ltd.
Russell (John) & Co., Ltd.
Tubes, Ltd.

Ferrules, Tool Handle

Accles & Pollock, Ltd.

Ferrules, Umbrella, &c.

Accles & Pollock, Ltd.
Explosives Trades, Ltd.
Wright, Bindley & Gell, Ltd.

Fertilizer Machinery

Boving & Co., Ltd.
Sturtevant Engineering Co., Ltd.

Fibre Machinery

Bridge (David) & Co., Ltd.
Greenwood & Batley, Ltd.
Marshall, Sons & Co., Ltd.

File Cutting Machines

White (E. T.) & Co.

Files and Rasps

Allen (Edgar) & Co., Ltd.
Andrew (Jno. Hy.) & Co., Ltd.
Balfour (Arthur) & Co., Ltd.
Beardshaw (J.) & Son, Ltd.
Brown (John) & Co., Ltd.
Firth (Thos.) & Co., Ltd.
Flather (W. T.), Ltd.
Howell & Co., Ltd.
Jonas & Colver, Ltd.
Kayser, Ellison & Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Turton Bros. & Matthews, Ltd.
Vickers, Ltd.
Wright, Bindley & Gell, Ltd.

Filing Devices (Office)

Dickinson (John) & Co., Ltd.
Heywood (John), Ltd.
Roneo, Ltd.
Setten & Durward.
Vickers, Ltd.
Witherby & Co.

Filter Cloths

Bright (John) & Bros., Ltd.
Horrockses, Crewdson & Co., Ltd.
Hoyle (Joshua) & Sons, Ltd.
Porritts & Spencer, Ltd.
Stott (James), Ltd.
Whitehead (David) & Sons, Ltd

Filter Paper

Allnutt (Henry) & Son.
Evans, Sons, Lescher & Webb, Ltd.
Spicer (James) & Son, Ltd.
Turner Bros. Asbestos Co., Ltd.

Filter Presses *(See "Presses, Filter.")*

Filters, Oil

Blakeborough (J.) & Sons, Ltd.
Manlove, Alliott & Co., Ltd.
North Eastern Marine Engineering Co., Ltd.
Rose, Downs & Thompson, Ltd.
Valor Co., Ltd.
Vickers, Ltd.
Wakefield (C. C.) & Co., Ltd.

Filters, Water (Domestic)

Doulton & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.

Filters, Water (Engineering)

Ashwell & Nesbitt, Ltd.
Blakeborough (J.) & Sons, Ltd.
North Eastern Marine Engineering Co., Ltd.
Pulsometer Engineering Co., Ltd.
Sturtevant Engineering Co., Ltd.

Filtration Plant

Blakeborough (J.) & Sons, Ltd.
Pulsometer Engineering Co., Ltd.
Sandycroft, Ltd.
Stott (James), Ltd.
Whessoe Foundry Co., Ltd.

Finger Plates, Door *(See "Door Furniture.")*

Fire Alarms

General Electric Co., Ltd.
Mather & Platt, Ltd.
Sterling Telephone & Electric Co., Ltd.

Fire Appliances

Blakeborough (J.) & Sons, Ltd.
Glenfield & Kennedy, Ltd.
Mather & Platt, Ltd.
Merryweather & Sons, Ltd.
Stone (J.) & Co., Ltd.
United Brassfounders & Engineers, Ltd.
Valor Co., Ltd.

Firearms

Greener (W. W.), Ltd.
Vickers, Ltd.
Westley, Richards & Co., Ltd.

Fire Bars

Brown (John) & Co., Ltd.
Clay Cross Co., Ltd.
Cradley Boiler Co., Ltd.
Guest, Keen & Nettlefolds, Ltd.
Holman Bros., Ltd.
Osborn (Samuel) & Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd
Summerson (Thomas) & Sons, Ltd.
Yates & Thom, Ltd.

Fireclay Goods *(See "Refractory Materials.")*

Fireclay Ware, Sanitary *(See "Sanitary Fittings.")*

Fire Engines

Dennis Bros., Ltd.
Gwynnes, Ltd.
Merryweather & Sons, Ltd.
Stone (J.) & Co., Ltd.
Tilling-Stevens Motors, Ltd.

Fire Escapes

Carron Company
Dennis Bros., Ltd.
Merryweather & Sons, Ltd.
Tilling-Stevens Motors, Ltd.

Fire Extinguishers, Automatic

Mather & Platt, Ltd.

Fire Extinguishers, Hand

Mather & Platt, Ltd.
Valor Co., Ltd.

Fire Floats

Merryweather & Sons, Ltd.
Thornycroft (John I.) & Co., Ltd.
Tilling-Stevens Motors, Ltd.
White (J. Samuel) & Co., Ltd.

Fireguards & Screens, Metal *(See "Furniture, Hearth.")*

Fireguards & Screens, Wire *(See "Wire Goods.")*

Fire-irons *(See "Furniture, Hearth.")*

Fireproof Building Materials

Bell's United Asbestos Co., Ltd.
Braithwaite & Co.
Chatwood Safe Co., Ltd
Docker Bros., Ltd.
Ludlow Bros. (1913), Ltd.
Motherwell Bridge Co., Ltd.
Tann (John), Ltd.
Turner Bros. Asbestos Co., Ltd.

Fireproofing Chemicals

May & Baker, Ltd.

First-aid Outfits

Evans, Sons, Lescher & Webb, Ltd.
Maw (S.), Son & Sons, Ltd.

Fish, Tinned and Potted

Crosse & Blackwell (Mfg. Co.), Ltd.
Maconochie Bros., Ltd.

Fish Meal, Fish Manure & Fish Oil Machinery

Manlove, Alliott & Co., Ltd.
Rose, Downs & Thompson, Ltd.

Fishing Rods

Westley, Richards & Co., Ltd.

Fishing Rod Mountings

Westley, Richards & Co., Ltd.

Fishing Lines & Nets

Linen Thread Co., Ltd.
Westley, Richards & Co., Ltd.
Wright (John & Edwin), Ltd.

Fishing Tackle

Westley, Richards & Co., Ltd.

Fitters' Tools

(See "Hand Tools, Engineers and Fitters'.")

Flags, Banners & Bunting

Calico Printers' Association, Ltd.
Piggott Bros. & Co., Ltd.
Simpson & Godlee. Ltd.

Flannels

Elton Cop Dyeing Co., Ltd.
Garnett (G.) & Sons, Ltd.
Porritts & Spencer, Ltd.
Salt (Sir Titus), Bart. & Co., Ltd.

Flannelettes

Barlow & Jones, Ltd.
Bright (John) & Bros., Ltd.
Elton Cop Dyeing Co., Ltd.
Haworth (Richard) & Co., Ltd.
Hollins Mill Co., Ltd.
Horrockses, Crewdson & Co., Ltd.
Hoyle (Joshua) & Sons, Ltd.
Jones Bros., Ltd.
Rose, Hewitt & Co.
Tootal, Broadhurst Lee Co., Ltd.
Wilkinson (John).

Flavine

Boots Pure Drug Co., Ltd.
May & Baker, Ltd.

Flax

Wright (John & Edwin), Ltd.

Flax Machinery

Boby (Robert), Ltd.
Fairbairn Lawson Combe Barbour, Ltd.
Marshall, Sons & Co. Ltd

Flooring, Metal

British Aluminium Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Newton, Chambers & Co., Ltd.
Tees Side Bridge & Engineering Works, Ltd.

Flooring, Metal, Corrugated or Trough

Braithwaite & Co.
British Aluminium Co., Ltd.
Cleveland Bridge & Engineering Co., Ltd.
Horsehay Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Keay (E., C. & J.), Ltd.
MacLellan (P. & W.), Ltd.
Mechans, Ltd.
Motherwell Bridge Co., Ltd.
Orr, Watt & Co., Ltd.
Vickers, Ltd.
Westwood (Joseph) & Co., Ltd

Flooring Composition

Bell's United Asbestos Co., Ltd.
Butler (William) & Co. (Bristol), Ltd
Docker Bros., Ltd.
International Paint & Compositions Co., Ltd.
Vickers, Ltd.

Flooring, Rubber

Cow (P. B.) & Co., Ltd.
Greengate & Irwell Rubber Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Macintosh (Charles) & Co., Ltd.
North British Rubber Co., Ltd.
Spencer (George), Moulton & Co., Ltd.
Vickers, Ltd.

Flour

Buchanan's Flour Mills, Ltd.
Crosse & Blackwell (Mfg. Co.), Ltd.
Frost (F. A.) & Sons.
Hutchinson (Edward).
Leetham (Henry) & Sons, Ltd.
Rank (Joseph), Ltd.
Rigby (Thomas) & Son, Ltd.
Simpson (William) (Manchester), Ltd.
Spillers' Milling & Associated Industries, Ltd.
Taylor (Seth).
Vernon (W.) & Sons Ltd.

Flour Bins, Boxes & Dredges

(See "Tinware and Woodenware.")

Flour-mill Machinery

Agricultural & General Engineers Ltd.
Blackstone & Co., Ltd.
Hardy Patent Pick Co., Ltd.
Holroyd (John) & Co., Ltd.
Ransomes, Sims & Jefferies, Ltd
Simon (Henry), Ltd.

Flour Milling

Buchanan's Flour Mills, Ltd.
Frost (F. A.) & Sons.
Rank (Joseph), Ltd.
Rigby (Thomas) & Son, Ltd.
Rishworth, Ingleby & Lofthouse, Ltd.
Simon (Henry), Ltd.
Spiller's Milling & Associated Industries, Ltd.
Vernon (W.) & Sons, Ltd.
Vickers, Ltd.

Flue Brushes *(See "Brush-ware and Brooms.")*

Fly Traps

Greening (N.) & Sons, Ltd.

Fog-horns

Alldays & Onions, Ltd.
Bulpitt & Sons, Ltd.
Chance Bros. & Co., Ltd.
Explosives Trades, Ltd.
Manlove, Alliott & Co., Ltd.

Foil, Aluminium

Aluminium Corporation, Ltd.
Spicer (James) & Sons, Ltd.

Foil, Lead

Betts & Co., Ltd.
Cookson & Co., Ltd.
Explosives Trades, Ltd.

Foil, Tin

Betts & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Spicer (James) & Sons, Ltd.

Food Rations

Crosse & Blackwell (Mfg. Co.), Ltd.
Maconochie Bros., Ltd.
Walker (John) & Co.

Foods, Prepared

Maconochie Bros., Ltd.
Watford Manufacturing Co., Ltd.

Football Requisites *(See "Sporting Goods.")*

Foot-baths

(See "Hollow-ware" and "Galvanized Iron Goods, etc.")

Foot Warmers, Metal

Evans, Sons, Lescher & Webb, Ltd
Ludlow Bros. (1913), Ltd.

Foot Warmers, Stoneware

Doulton & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.

Footwear, Rubber *(See "Boots and Shoes.")*

Footwear, Woollen *(See "Hosiery.")*

Forced Draught Apparatus

(See "Mechanical Draught Apparatus" and "Blowers.")

Forges

Alldays & Onions, Ltd.
Sturtevant Engineering Co., Ltd.

Forges, Portable

Alldays & Onions, Ltd.
Carron Company.
Hadfields, Ltd.
Sturtevant Engineering Co., Ltd.
Thwaites Bros., Ltd.

Forging Machines

Fielding & Platt, Ltd.
Greenwood & Batley, Ltd.
Hollings & Guest, Ltd.
Holroyd (John) & Co., Ltd.

Forgings, Brass & Bronze

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Bolton (Thomas) & Sons, Ltd.
Carron Company.
Delta Metal Co., Ltd.
Explosives Trades, Ltd.
McKechnie Bros., Ltd.
Singer (J. W.) & Sons, Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.
Stone (J.) & Co., Ltd.
United Brassfounders & Engineers, Ltd.
Valor Co., Ltd.
White (E. T.) & Co.

Forgings, Carriage & Motor Car

Andrew (Jno. Hy.) & Co., Ltd.
Brockhouse (J.) & Co., Ltd.
Brown (John) & Co., Ltd.
Bullers, Ltd.
Clayton & Shuttleworth, Ltd.
Cotterill (F. W.), Ltd.
Darlington Forge, Ltd.
Duckworth & Co.
Electro-Mechanical Brake Co., Ltd.
Flather (W. T.), Ltd.
Gilbertson (W.) & Co., Ltd.
Holman Bros., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Jessop (William) & Sons, Ltd
Jonas & Colver, Ltd.
Kirkstall Forge, Ltd.
Leeds Forge Co., Ltd.
Metropolitan Carriage, Wagon & Finance Co., Ltd.
Monk Bridge Iron & Steel Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Singer (J. W.) & Sons, Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.
Smith's (Thomas) Stamping Works, Ltd.
Stone (J.) & Co., Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Valor Co., Ltd.
Vickers, Ltd.
White (E. T.) & Co.

Forgings, Drop

Agricultural & General Engineers, Ltd.
Albion Drop Forgings Co., Ltd.
Andrew (Jno. Hy.) & Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Bain (William) & Co., Ltd.
Bayliss, Jones & Bayliss, Ltd.
Beardmore (William) & Co., Ltd
Bolton (Thomas) & Sons.
Brockhouse (J.) & Co., Ltd
Brown (John) & Co., Ltd.
Bullivant & Co., Ltd.
Carron Company.
Clayton & Shuttleworth, Ltd
Consolidated Signal Co., Ltd.
Cotterill (F. W.), Ltd.
Electro-Mechanical Brake Co., Ltd.
Firth (Thomas) & Sons, Ltd.
Gilbertson (W.) & Co., Ltd.
Hardy Patent Pick Co., Ltd.
Head, Wrightson & Co., Ltd.
Holman Bros., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Jessop (William) & Sons, Ltd.
Keay (E., C. & J.), Ltd.
Kirkstall Forge Ltd.
Leeds Forge Co., Ltd.
MacLellan (P. & W.), Ltd.
McKechnie Bros., Ltd.
Mechans, Ltd.
Metropolitan Carriage, Wagon & Finance Co., Ltd.
Monk Bridge Iron & Steel Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Roberts (Charles) & Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Singer (J. W.) & Sons, Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.
Smith's (Thomas) Stamping Works.
Stone (J.) & Co., Ltd.
Suckling, Ltd.
Tees Side Bridge & Engineering Works, Ltd
Valor Co., Ltd.
Vickers, Ltd.
White (E. T.) & Co.

Forgings, Engineering

Agricultural & General Engineers, Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Beardmore (William) & Co., Ltd.
Brockhouse (J. & Co.), Ltd.
Brown (John) & Co., Ltd.
Bullers, Ltd.

Forgings, Engineering—*continued.*

Bullivant & Co., Ltd.
Clayton & Shuttleworth, Ltd.
Cotterill (F. W.), Ltd.
Darlington Forge, Ltd.
Electro-Mechanical Brake Co., Ltd.
Firth (Thos.) & Sons, Ltd.
Fox (Samuel) & Co., Ltd.
Gilbertson (W.) & Co., Ltd.
Hadfields, Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Holman Bros., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Jessop (William) & Sons, Ltd.
Jonas & Colver, Ltd.
Kirkstall Forge Co., Ltd.
Metropolitan Carriage, Wagon & Finance Co., Ltd.
Monk Bridge Iron & Steel Co., Ltd.
North Eastern Marine Engineering Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Plowright Bros., Ltd.
Sandycroft, Ltd.
Singer (J. W.) & Sons, Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.
Smith's (Thomas) Stamping Works, Ltd.
Spencer (John) & Sons, Ltd.
Steel, Peech & Tozer, Ltd.
Stephenson (Robert) & Co., Ltd.
Stone (J.) & Co., Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Valor Co., Ltd.
Vickers, Ltd.
Wild (M. B.) & Co., Ltd.

Forgings, Light

Agricultural & General Engineers, Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Bain (William) & Co., Ltd.
Beardmore (William) & Co., Ltd.
Beyer, Peacock & Co., Ltd.
Brinjes & Goodwin, Ltd.
British Insulated & Helsby Cables, Ltd
Brown (John) & Co., Ltd.
Bullers, Ltd.
Bullivant & Co., Ltd.
Consolidated Signal Co., Ltd.
Cotterill (F. W.), Ltd.
Darlington Forge, Ltd.
Electro-Mechanical Brake Co., Ltd.
Firth (Thos.) & Sons, Ltd.
Flather (W. T.), Ltd.
Head, Wrightson & Co., Ltd.
Holman Bros., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Hurst, Nelson & Co., Ltd.
Jessop (Wm.) & Sons, Ltd.
Jonas & Colver, Ltd.
Leeds Forge Co., Ltd.
Lysaght (John), Ltd
Metropolitan Carriage, Wagon & Finance Co., Ltd.
North Eastern Marine Engineering Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Plowright Bros., Ltd.
Roberts (Charles) & Co., Ltd.
Singer (J. W.) & Sons, Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.
Smith's (Thomas) Stamping Works, Ltd.
Stephenson (Robert) & Co., Ltd.
Stone (J.) & Co., Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Valor Co., Ltd.
Vickers, Ltd.

Forgings, Steel

Agricultural & General Engineers, Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd
Andrew (Jno. Hy.) & Co., Ltd.
Balfour (Arthur) & Co., Ltd.
Beardmore (William) & Co., Ltd.
Bearshaw (J.) & Son, Ltd.
Bessemer (Henry) & Co., Ltd.
Beyer, Peacock & Co., Ltd.
Brockhouse (J.) & Co., Ltd.
Brown, Bayley's Steel Works, Ltd
Brown (John) & Co., Ltd.
Bullers, Ltd.
Bullivant & Co., Ltd.
Clayton & Shuttleworth, Ltd.
Cotterill (F. W.), Ltd.
Darlington Forge, Ltd.
Electro-Mechanical Brake Co., Ltd.
Firth (Thos.) & Sons, Ltd.
Flather (W. T.), Ltd.
Fox (Samuel) & Co., Ltd.
Gilbertson (W.) & Co., Ltd.
Hadfields, Ltd.
Horseley Bridge & Engineering Co., Ltd.
Jessop (William) & Sons, Ltd.
Jonas & Colver, Ltd.
Kayser, Ellison & Co., Ltd.
Keay (E., C. & J.), Ltd.
Kirkstall Forge, Ltd.
Leeds Forge Co., Ltd.
Metropolitan Carriage, Wagon & Finance Co., Ltd.
Monk Bridge Iron & Steel Co., Ltd.
North Eastern Marine Engineering Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Plowright Bros., Ltd.
Projectile & Engineering Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Singer (J. W.) & Sons, Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.
Smith's (Thomas) Stamping Works, Ltd.
Spencer (John) & Sons, Ltd.
Steel, Peech & Tozer, Ltd.
Taylor Bros. & Co., Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Turton Bros. & Matthews, Ltd.
Valor Co., Ltd.
Vickers, Ltd.
Westwood (Joseph) & Co., Ltd.

Forks, Industrial

(*See "Agricultural Implements and Tools."*)

Forks, Table (*See "Knives and Forks," also "Silver-ware and Nickle-plated Ware."*)

Formaldehyde

Boake (A.), Roberts & Co., Ltd.
Boots Pure Drug Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Formates

Boake (A.), Roberts & Co., Ltd.
British Drug Houses, Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd

Formomol
May & Baker, Ltd.

Foundry Equipment
Alldays & Onions, Ltd.
Explosives Trades, Ltd.
Greenwood & Batley, Ltd.
Hollings & Guest, Ltd.
Holmes (W. C.) & Co., Ltd.
Monometer Manufacturing Co. (1918), Ltd.
Sheepbridge Coal & Iron Co., Ltd.
Thwaites Bros., Ltd.

Fountains, Garden & Drinking
Blakeborough (J.) & Sons, Ltd.
Carron Company.
Glenfield & Kennedy, Ltd.

Freezers, Ice-cream
(See "Refrigerators, etc.")

Frames, Hand-bag
Edmonds (George), Ltd.
Smith (John), Ltd.

Frames, Picture & Photograph
Heywood (John), Ltd.

Fretsawing Machines
Aublet (Harry) & Co., Ltd.
Haighs (Oldham), Ltd.

Fruits, Dried
Crosse & Blackwell (Mfg. Co.), Ltd.
Simpson (William) (Manchester), Ltd.

Fruits, Tinned & Bottled
Crosse & Blackwell (Mfg. Co.), Ltd.
Keiller (James) & Son, Ltd.
Simpson (William) (Manchester), Ltd.

Fruit Wines, Syrups & Cordials
Simpson (William) (Manchester), Ltd.

Frypans *(See "Hollow-ware and Tinware.")*

Fuel (Patent)
Baird (Wm.) & Co., Ltd.
Clarke (Stephenson) & Co.
Graigola Merthyr Co., Ltd.
Low Temperature Carbonisation, Ltd.
Major & Co., Ltd.
Pease & Partners, Ltd.
Phoenix Patent Fuel, Ltd.
Wilson Bros. Bobbin Co., Ltd.

Fullers'-earth
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Fullers, Smiths'
(See "Hand Tools, Blacksmiths'.")

Fungicides
Berger (Lewis) & Sons, Ltd.
Boots Pure Drug Co., Ltd.
Cooper (William) & Nephews.
Lawes' Chemical Manure Co., Ltd.

Funnels *(See "Tinware.")*

Furnace Fittings
Carron Company.
Matthews & Yates, Ltd.
Newton, Chambers & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Wright (John) & Eagle Range, Ltd.

Furnaces, Annealing
Alldays & Onions, Ltd.
British Insulated & Helsby Cables, Ltd.
Churchill (Charles) & Co., Ltd.
Duram, Ltd.
Explosives Trades, Ltd.
Monometer Manufacturing Co. (1918), Ltd.
Richmond Gas Stove & Meter Co., Ltd.
Woodall, Duckham & Jones (1920), Ltd.
Wright (John) & Eagle Range, Ltd.

Furnaces, Blast
Bradley & Foster, Ltd.
Clayton, Son & Co., Ltd.
Consett Iron Co., Ltd.
Markham & Co., Ltd.
Mechans, Ltd.
Newton, Chambers & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Wright (John) & Eagle Range, Ltd.

Furnaces, Boiler (Marine)
Brown (John) & Co., Ltd.
Clayton, Son & Co., Ltd.
Hawthorne (R. & W.), Leslie & Co., Ltd.
Hill (J. & P.).
Leeds Forge Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.

Furnaces, Crucible, Tilting
Alldays & Onions, Ltd.
Duram, Ltd.
Monometer Manufacturing Co. (1918), Ltd.
Morgan Crucible Co., Ltd.
Newton, Chambers & Co., Ltd.
Richmond Gas Stove Meter Co., Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Wright (John) & Eagle Range, Ltd.

Furnaces, Foundry
Alldays & Onions, Ltd.
Bradley & Foster, Ltd.
Monometer Manufacturing Co. (1918), Ltd.
Morgan Crucible Co., Ltd.
Newton, Chambers & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Thwaites Bros., Ltd.
Wright (John) & Eagle Range, Ltd.

Furnaces, House-heating
Brightside Foundry & Engineering Co., Ltd.
Newton, Chambers & Co., Ltd.
Stone (J.) & Co., Ltd.

Furnaces, Portable
Alldays & Onions, Ltd.
Monometer Manufacturing Co. (1918), Ltd.
Morgan Crucible Co., Ltd.
Richmond Gas Stove & Meter Co., Ltd.
Wright (John) & Eagle Range, Ltd.

Furnaces, Smelting & Refining

Head, Wrightson & Co., Ltd.
Morgan Crucible Co., Ltd.
Newton, Chambers & Co., Ltd.
Wright (John) & Eagle Range, Ltd.

Furniture

Bath Aircraft, Ltd.
Birch (William), Ltd.
Central Aircraft Co.
Finnigans, Ltd.
Glendower Aircraft Co., Ltd.
Grahame-White Co., Ltd.
Harrod's, Ltd.
Heywood (John), Ltd.
Lebus (Harris).
Vickers, Ltd.
White, Allom & Co.

Furniture, Bentwood

Birch (William), Ltd.
Lebus (Harris).
Remer (John) & Co., Ltd.

Furniture, Camp & Folding

Birch (William), Ltd.
Fitter Bros.
Grahame-White Co., Ltd.
Heywood (John), Ltd.
Lebus (Harris).

Furniture Fittings, Metal

(*See "Brassfoundry, etc.," and "Ironmongery."*)

Furniture, Hearth

Carron Company.

Furniture, Invalid

Birch (William), Ltd.
Lebus (Harris).
Maw (S.), Son & Sons, Ltd.

Furniture, Metal

Aircraft Manufacturing Co., Ltd.
Braby (Frederick) & Co., Ltd.
Crittall Manufacturing Co., Ltd.
Harris & Sheldon, Ltd.
Ludlow Bros. (1913), Ltd.
Roneo, Ltd.
Sankey (Joseph) & Sons, Ltd.
Westwood (Joseph) & Co., Ltd

Furniture, Office

Aircraft Manufacturing Co., Ltd.
Bath Aircraft, Ltd.
Birch (William), Ltd.
Central Aircraft Co.
Crittall Manufacturing Co., Ltd.
Dickinson (John) & Co., Ltd.
Grahame-White Co., Ltd.
Halden (J.) & Co., Ltd.
Harris & Sheldon, Ltd.
Heywood (John), Ltd.
Lebus (Harris).
Norton & Gregory, Ltd.
Projectile & Engineering Co., Ltd.
Remer (John) & Co., Ltd.
Sankey (Joseph) & Sons, Ltd.
Vickers, Ltd.

Furniture, School, Church, &c.

Birch (William), Ltd.
Central Aircraft Co.
Grahame-White Co., Ltd.
Heywood (John), Ltd.
Lebus (Harris).
Remer (John) & Co., Ltd.

Furs

Nagersheth (M.) Sons.

Furs, Imitation

Drey, Simpson & Co., Ltd.
Fur Fabric Co., Ltd.
Lister & Co., Ltd.
Walker Bros.

Fuses & Detonators

Armstrong (Sir W. G.), Whitworth & Co. Ltd
Explosives Trades, Ltd.
Glover & Main, Ltd.
Wolseley Motors, Ltd.

Fuses, Electric

Blackwell (Robert W.) & Co.. Ltd.
British Aluminium Co., Ltd.
British Insulated & Helsby Cables, Ltd.
Edison Swan Electric Co., Ltd.
English Electric Co., Ltd.
Explosives Trades, Ltd.
General Electric Co., Ltd.
Johnson & Phillips, Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Tucker (J. H.) & Co., Ltd.

Fuse Wire

British Aluminium Co., Ltd.
British Insulated & Helsby Cables, Ltd.
Callender's Cable & Construction Co., Ltd.
Explosives Trades, Ltd.
General Electric Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Tucker (J. H.) & Co., Ltd.

G

Gabardines

Cliffe Mills Co., Ltd.
Empsall & Firth, Ltd.
Gates (Ernest) & Co.
Halliday (John) & Sons.
Harrow-Bunn & Butler.
Haworth (Richard) & Co., Ltd.
Hoyle (Joshua) & Sons, Ltd.
Lichenstein (J. & E.) (Jeles), Ltd.
Longbottom (H.) & Co., Ltd.
Pepper, Lee & Co., Ltd.
Rose, Hewitt & Co.
Salt (Sir Titus), Bart., & Sons & Co., Ltd.
Smithson (Joseph), Ltd.
Stott (James), Ltd.
Sutcliffe & Co.
Thomas (J.) & Co., Ltd.
Tootal, Broadhurst, Lee Co., Ltd.
United Turkey Red Co., Ltd.
Walker Bros.
Wilkinson (John).
Yates (W. E.), Ltd.

Gaiters (*See "Leggings and Gaiters."*)

Galenicals

Boots Pure Drug Co., Ltd.
British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Galvanising

Accles & Pollock, Ltd.
Baldwins, Ltd.
Braby (Frederick) & Co., Ltd.
Bullers, Ltd.
Gilbertson (W.) & Co., Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Ludlow Bros. (1913), Ltd
Lysaght (John), Ltd.
Mechans, Ltd.
Morton (Francis) & Co., Ltd.
National Galvanisers, Ltd.
Newton, Chambers & Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Rose, Downs & Thompson, Ltd.
Stewarts & Lloyds, Ltd.

Galvanized Iron Goods

(See also "Hollow-ware, Galvanized Iron.")

Acetylene Corporation of Great Britain, Ltd.
Baldwins, Ltd.
Birmingham Corrugated Iron Co., Ltd.
Braby (Frederick) & Co., Ltd.
Dorman, Long & Co., Ltd.
Gilbertson (W.) & Co., Ltd.
Gorse Galvanising Co., Ltd.
Harvey (G. A.) & Co. (London), Ltd.
Holt & Willetts.
Ludlow Bros. (1913), Ltd.
Lysaght (John), Ltd.
National Galvanisers, Ltd.
Newton, Chambers & Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Stewarts & Lloyds, Ltd.
Summers (John) & Sons, Ltd.

Galvanized Sheets, Corrugated

(See "Iron Sheet, Corrugated," and "Steel Sheet, Corrugated.")

Galvanizing Plant

Canning (W.) & Co.
Clarke, Chapman & Co., Ltd.
Thompson (John) (Wolverhampton), Ltd.

Garden Rollers

Carron Company.
Newton, Chambers & Co., Ltd.

Garden Seats & Tables

Bayliss, Jones & Bayliss, Ltd.
Birch (William), Ltd.
Carron Company.
Fitter Bros.
Grahame-White Co., Ltd
Lebus (Harris).
Remer (John) & Co., Ltd.

Garden Syringes

Benton & Stone, Ltd.
Bulpitt & Sons, Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
United Brassfounders & Engineers, Ltd.

Garden Tools *(See "Hand Tools.")*

Garbage Incinerators

(See "Destructors, Refuse.")

Garters *(See "Braces, Suspenders and Garters.")*

Gas & Acetylene Burners

Acetylene Corporation of Great Britain, Ltd.
Collins (Christopher), Ltd.
Glover & Main, Ltd.
Matthews & Yates, Ltd.
Monometer Manufacturing Co. (1918), Ltd.
Welsbach Light Co., Ltd.
Wright, Bindley & Gell, Ltd.

Gas Compressors

(See "Compressors Air, Gas, etc.")

Gas Engines

Agricultural & General Engineers, Ltd.
Allen (W. H.), Sons & Co., Ltd.
Crossley Bros., Ltd.
Fielding & Platt, Ltd.
Lister (R. A.) & Co., Ltd.
National Gas Engine Co., Ltd.
Ruston & Hornsby, Ltd.
Vickers, Ltd.

Gas Fitters' Tools

(See "Hand Tools, Plumbers' and Pipe Fitters'")

Gas Fittings

Acetylene Corporation of Great Britain, Ltd.
Russell (John) & Co., Ltd.
Smith (John), Ltd.
Stewarts & Lloyds, Ltd.

Gas Holders

Acetylene Corporation of Great Britain, Ltd.
Braby (Frederick) & Co., Ltd.
Clayton, Son & Co., Ltd.
Cutler (Samuel) & Sons, Ltd.
Glover & Main, Ltd.
Head, Wrightson & Co., Ltd.
Holmes (W. C.) & Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Mechans, Ltd.
Piggott (Thomas) & Co., Ltd.
Newton, Chambers & Co.. Ltd.
Whessoe Foundry Co., Ltd.

Gas (Incandescent) Fittings

Bulpitt & Sons, Ltd.
Harrison & Co.
Smith (John), Ltd.
Welsbach Light Co., Ltd.
Wright, Bindley & Gell. Ltd.

Gas (Incandescent) Mantles

Explosives Trades, Ltd.
Welsbach Light Co., Ltd.

Gasometers

Braby (Frederick) & Co., Ltd.
Clayton, Son & Co., Ltd.
Cutler (Samuel) & Sons, Ltd.
Holmes (W. C.) & Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Mechans, Ltd.
Piggott (Thomas) & Co., Ltd.

Gas Pipes *(See "Pipes and Tubes.")*

Gas Producing Plant

Agricultural & General Engineers, Ltd.
Ashwell & Nesbit, Ltd.
British Oxygen Co., Ltd.
Clayton, Son & Co., Ltd.
Crossley Bros., Ltd.
Head, Wrightson & Co., Ltd.
Horsehay Co., Ltd.
Mechans, Ltd.
National Gas Engine Co., Ltd.
Newton, Chambers & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Ruston & Hornsby, Ltd.
Woodall, Duckham & Jones (1920), Ltd.

Gas Radiators

Ashwell & Nesbit, Ltd.
Glover & Main, Ltd.
Richmond Gas Stove & Meter Co., Ltd.
Welsbach Light Co., Ltd.

Gas Stoves

Ashwell & Nesbit, Ltd.
Carron Company.
Glover & Main, Ltd.
Richmond Gas Stove & Meter Co., Ltd.
Welsbach Light Co., Ltd.
Wright (John) & Eagle Range, Ltd.

Gas-well Boring Plant

(*See "Well-boring Plant."*)

Gas-works Plant

Arrol (Sir William) & Co., Ltd.
Clayton, Son & Co., Ltd.
Cutler (Samuel) & Sons, Ltd.
Donkin (Bryan) & Co., Ltd.
Head, Wrightson & Co., Ltd.
Holmes (W. C.) & Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Mechans, Ltd.
Newton, Chambers & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Westwood (Joseph) & Co., Ltd.
Whessoe Foundry Co., Ltd.
Wild (M. B.) & Co., Ltd.
Woodall, Duckham & Jones (1920), Ltd.

Gates

(*See "Fencing and Gates, Steel and Iron."*)

Gate Operating Apparatus (Railway)

Consolidated Signal Co., Ltd.
Stothert & Pitt, Ltd.

Gates, Lock, Sluice or Dock

Armstrongs & Main, Ltd.
Arrol (Sir William) & Co., Ltd.
Blakeborough (J.) & Sons, Ltd.
Braithwaite & Co.
Cleveland Bridge & Engineering Co, Ltd.
Head, Wrightson & Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Glenfield & Kennedy, Ltd.
Holt & Willetts.
Horsehay Co., Ltd.
MacLellan (P. & W.), Ltd.
Mechans, Ltd.
Motherwell Bridge Co., Ltd.
Orr, Watt & Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Ransomes & Rapier, Ltd.
Stone (J.) & Co., Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Vickers, Ltd.
Westwood (Joseph) & Co., Ltd.
Wood (Edward) & Co., Ltd.

Gates, Railway

Bain (William) & Co., Ltd.
Bayliss, Jones & Bayliss, Ltd.
Consolidated Signal Co., Ltd.
Keay (E., C. & J.), Ltd.
Stothert & Pitt, Ltd.

Gauge Glasses

(*See "Glassware, Machinery."*)

Gauges, Carpenters'

(*See "Hand Tools."*)

Gauges, Pressure, Vacuum

Blakeborough (J.) & Sons, Ltd.
Glenfield & Kennedy, Ltd.
Glover & Main, Ltd.
Gresham & Craven, Ltd.
Jennings (George), Ltd.
Smith (S.) & Sons (Motor Accessories), Ltd.
United Brassfounders & Engineers, Ltd.

Gauges, Standard Measuring

Aircraft Manufacturing Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Associated British Machine Tool Makers, Ltd.
Cooke (T.) & Sons, Ltd.
Halden (J.) & Co., Ltd.
Hooker (Peter), Ltd.
Jones (A. A.) & Shipman, Ltd.
Wolseley Motors, Ltd.

Gauges, Water, &c.

Blakeborough (J.) & Sons, Ltd.
Kent (George), Ltd.
Hopkinson (J.) & Co., Ltd.
United Brassfounders & Engineers, Ltd.

Gauges, Wire

(*See "Gauges, Standard, Measuring."*)

Gauze, Wire

(*See "Wire Cloth, Weaving and Gauze."*)

Gear Boxes, Chain

Associated British Machine Tool Makers, Ltd.
Coventry Chain Co., Ltd.
Greenwood & Batley, Ltd.
Matthews & Yates, Ltd.
Vickers, Ltd.

Gear Cases

Brooks (J. B.) & Co., Ltd.
English Electric Co., Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Parsons' Marine Steam Turbine Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Power Plant Co., Ltd.
Projectile & Engineering Co., Ltd.
Raleigh Cycle Co., Ltd.
Wigglesworth (Frank) & Co., Ltd.
Wild (M. B.) & Co., Ltd.

Gear-cutting Machine

Armstrong (Sir W. G.), Whitworth & Co., Ltd
Associated British Machine Tool Makers, Ltd.
Brown (David) & Sons (Huddersfield), Ltd.
Greenwood & Batley, Ltd.
Holroyd (John) & Co., Ltd.

Gear-cutting Machines—*continued.*

Parsons (C. A.) & Co., Ltd.
Parsons' Marine Steam Turbine Co., Ltd.
Power Plant Co., Ltd.
Vickers, Ltd.

Gear Testing Machines

Associated British Machine Tool Makers, Ltd.
Holroyd (John) & Co., Ltd.

Gear Wheels (Cut)

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Associated British Machine Tool Makers, Ltd.
Beardmore (William) & Co., Ltd.
Blackwell (Robert W.) & Co., Ltd.
Bridge (David) & Co., Ltd.
British Insulated & Helsby Cables, Ltd.
Brown (David) & Sons (Huddersfield), Ltd.
Central Aircraft Co.
Consolidated Signal Co., Ltd.
Cooke (T.) & Sons, Ltd.
Darlington Forge, Ltd.
Electro-Mechanical Brake Co., Ltd.
English Electric Co., Ltd.
Hadfields, Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Holroyd (John) & Co., Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
North British Diesel Engine Works, Ltd.
Osborn (Samuel) & Co., Ltd.
Parsons' Marine Steam Turbine Co., Ltd.
Power Plant Co., Ltd.
Rose, Downs & Thompson, Ltd.
Short Bros. (Rochester & Bedford), Ltd.
Vickers, Ltd.
Wigglesworth (Frank) & Co., Ltd.
White (E. T.) & Co.
Williams (Edward).

Gear Wheels (Moulded)

Allen (Edgar) & Co., Ltd.
Bridge (David) & Co., Ltd.
Darlington Forge, Ltd. (The).
Firth (Thos.) & Sons, Ltd.
Hadfields, Ltd.
Holroyd (John) & Co., Ltd.
Jessop (William) & Sons, Ltd.
Lloyd (F. H.) & Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Partington Steel & Iron Co., Ltd.
Plowright Bros., Ltd.
Rose, Downs & Thompson, Ltd.
Spencer (John) & Sons, Ltd.
Stone (J.) & Co., Ltd.
Wigglesworth (Frank) & Co., Ltd.
Yates & Thom, Ltd.

Gearing (*See "Shafting and Gearing."*)

Gears, Reduction

Brown (David) & Sons (Huddersfield), Ltd.
Coventry Chain Co., Ltd.
Fairfield Shipbuilding & Engineering Co., Ltd.
Greenwood & Batley, Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Hill (J. & P.).
Holroyd (John) & Co., Ltd.
North British Diesel Engine Works, Ltd.
Parsons (C. A.) & Co., Ltd.
Parsons' Marine Steam Turbine Co., Ltd.
Thornycroft (John I.) & Co., Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.
Wigglesworth (Frank) & Co., Ltd.

Gearing, Worm

Associated British Machine Tool Makers, Ltd.
Beardmore (William) & Co., Ltd.
Brown (David) & Sons (Huddersfield), Ltd.
Daimler Co., Ltd.
Darlington Forge, Ltd. (The).
Hadfields, Ltd.
Holroyd (John) & Co., Ltd.
Jessop (William) & Sons, Ltd.
Osborn (Samuel) & Co., Ltd.
Power Plant Co., Ltd.
Stone (J.) & Co., Ltd.
White (E. T.) & Co.

Gelatine

Crosse & Blackwell (Mfg. Co.), Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Oldroyd (Wm.) & Sons, Ltd.
Simpson (William) (Manchester), Ltd.

Gelatine (Blasting) and Gelignite

(*See "Explosives."*)

Generators, Acetylene Gas

(*See "Acetylene, etc."*)

Generators, Electric

(*See "Electric Generators."*)

Geysers

Glover & Main, Ltd.
Harvey (G. A.) & Co. (London), Ltd.
Jennings (George), Ltd.

Gimlets (*See "Hand Tools, Carpenters'."*)

Gimp Pins (*See "Nails and Tacks, Wire."*)

Gin

Distillers Co., Ltd. (The).
Lowrie (W. P.) & Co., Ltd.

Gingerin

British Drug Houses, Ltd.
Bush (W. J.) & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Girders, Iron & Steel

(*See "Iron Girders" and "Steel Girders."*)

Glass Bulbs

British Glass Industries, Ltd.
Edison Swan Electric Co., Ltd.
Explosives Trades, Ltd.
General Electric Co., Ltd.
United Glass Bottle Manufacturers, Ltd.
Welsbach Light Co., Ltd.

Glass, Fire Resisting

British Glass Industries, Ltd.
Chance Bros. & Co., Ltd.
Pilkington Bros., Ltd.
United Glass Bottle Manufacturers, Ltd.

Glass, Floor & Skylight

British Glass Industries, Ltd.
Chance Bros. & Co., Ltd.
Pilkington Bros., Ltd.
Triplex Safety Glass Co., Ltd.

Glass, Fluted & Ribbed (Rough Plate & Reinforced Plate)
British Glass Industries, Ltd.
Chance Bros. & Co., Ltd.
Pilkington Bros., Ltd.

Glass Manufacturers' Plant
Brinjes & Goodwin, Ltd.

Glass, Microscopical
British Glass Industries, Ltd.
Chance Bros. & Co., Ltd.
United Glass Bottle Manufacturers, Ltd.

Glass (Optical), Scientific
Barr, Stroud, Ltd.
British Glass Industries, Ltd.
Chance Bros. & Co., Ltd.
United Glass Bottle Manufacturers, Ltd.

Glass, Plate (Polished)
Pilkington Bros., Ltd.

Glass, Rod & Tubing
(See "Tubing and Rod, Glass.")

Glassware, Chemical, Medical & Bacteriological
British Glass Industries, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Maw (S.), Son & Sons, Ltd.
Thermal Syndicate, Ltd.
United Glass Bottle Manufacturers, Ltd.

Glassware, Illuminating
British Glass Industries, Ltd.
Chance Bros. & Co., Ltd.
Thermal Syndicate, Ltd.

Glassware, Table
British Glass Industries, Ltd.

Glass, Silvered *(See "Mirrors.")*

Glass, Wire
(See "Glass, Fluted and Ribbed, etc.")

Glassware, Machinery
British Glass Industries, Ltd.
Hopkinson (J.) & Co., Ltd.

Glass, Rolled Sheet
British Glass Industries, Ltd.
Chance Bros. & Co., Ltd.
Pilkington Bros., Ltd.

Glass, Spectacle
British Glass Industries, Ltd.
Chance Bros. & Co., Ltd.
United Glass Bottle Manufacturers, Ltd.

Glaubers Salts *(See "Sodium Sulphate.")*

Glazing for Roofs
British Glass Industries, Ltd.
Chance Bros. & Co., Ltd.
Mellowes & Co., Ltd.
Pilkington Bros., Ltd.
Vickers, Ltd.

Globes, Lamp, Gas & Electric Light
(See "Glassware, Illuminating.")

Gloves, Fabric
Moore, Eady & Murcott Goode, Ltd.
Wolsey, Ltd.

Gloves, Leather
Clark, Son & Morland, Ltd.

Gloves, Rubber
Cow (P. B.) & Co., Ltd.
Greengate & Irwell Rubber Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Ingram (J. G.) & Son, Ltd.
Macintosh (Chas.) & Co., Ltd.
Moseley (David) & Sons, Ltd.
North British Rubber Co., Ltd.
Vickers, Ltd.
Warne (William) & Co., Ltd.

Glucose
British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
Spiller's Milling & Associated Industries, Ltd.

Glue
Acton & Borman, Ltd.
Oldroyd (Wm.) & Sons, Ltd.
Thornley (Samuel), Ltd.

Glue Pots, &c.
(See "Hollow-ware, Cast Iron.")

Glycerine
Evans, Sons, Lescher & Webb, Ltd.
Crosfield (Joseph) & Sons, Ltd.
May & Baker, Ltd.
Watson (Joseph) & Sons, Ltd.

Glycerophosphates
Boots Pure Drug Co., Ltd.
British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Go-Carts *(See "Baby Carriages, etc.")*

Goggles (Sun, Motoring, &c.)
British Oxygen Co., Ltd.
Maw (S.), Son & Sons, Ltd.
Smith (S.) & Sons (Motor Accessories), Ltd.
Triplex Safety Glass Co., Ltd.

Gold
Dennison Watch Case Co., Ltd.
Johnson, Matthey & Co., Ltd.
Metal Powders, Ltd.
Mond Nickel Co., Ltd.

Gold Leaf
Metal Powders, Ltd.
Vickers, Ltd.

Gold Products, Chemical
Canning (W.) & Co.
Johnson, Matthey & Co., Ltd.

Golf Balls
Avon India Rubber Co., Ltd.
British Insulated & Helsby Cables, Ltd.
Dunlop Rubber Co., Ltd.

Golf Balls—*continued.*

India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
North British Rubber Co., Ltd.
Wood-Milne, Ltd.

Gongs

Collyer (John) & Co., Ltd.
Suckling, Ltd.

Gouges (*See "Chisels, Carpenters', etc."*)

Governors & Regulators

Donkin (Bryan) & Co., Ltd.
United Brassfounders & Engineers, Ltd.

Grabs

General Electric Co., Ltd.
Rose, Downs & Thompson, Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.
Stothert & Pitt, Ltd.
Westwood (Joseph) & Co., Ltd.

Grain

Cross (Alexander) & Sons, Ltd.
Spiller's Milling & Associated Industries, Ltd.

Grains, Brewers' & Distillers' (Dried)

Calder (James) & Co., Ltd.
Cross (Alexander) & Sons, Ltd.
Mann, Crossman & Paulin, Ltd.
Spiller's Milling & Associated Industries, Ltd.
Watney, Combe, Reid & Co., Ltd.

Grain & Seed Cleaning & Handling Machinery

Boby (Robert), Ltd.
Mechans, Ltd.
Simon (Henry), Ltd.

Gramophones, Phonographs & Records

Aircraft Manufacturing Co., Ltd.
Central Aircraft Co.
Garrard & Co., Ltd.
Gramophone Co., Ltd.

Graphites (*See "Plumbago."*)

Graters (Nutmeg, &c.) (*See "Tinware."*)

Grates, Fireplace (*See "Stoves, Ranges, etc."*)

Gratings, Iron (*See "Castings, Iron."*)

Greases, Lubricating (*See "Lubricants."*)

Green Oil

Baird (Wm.) & Co., Ltd.
Brotherton & Co., Ltd.
Burt, Boulton & Haywood, Ltd.
Butler (William) & Co. (Bristol), Ltd.
Cargo Fleet Iron Co., Ltd.
Gas Light & Coke Co.
Gaunt & Hickman.
Major & Co., Ltd.
Newton, Chambers & Co., Ltd.
Rose (Sir W. A.) & Co., Ltd.
South Metropolitan Gas Co.

Grilles & Gratings

Bayliss, Jones & Bayliss, Ltd.
Carron Company.
Horseley Bridge & Engineering Co., Ltd.
Ludlow Bros. (1913), Ltd.
Measures Bros. (1911), Ltd.

Grindery (Boot & Shoe)

Explosives Trades, Ltd.
Faire Bros. & Co., Ltd.

Grinding Machines for Tools

Associated British Machine Tool Makers, Ltd.
Beyer, Peacock & Co., Ltd.
Churchill (Charles) & Co., Ltd.
Drummond Bros., Ltd.
Holroyd (John) & Co., Ltd.
Jones (A. A.) & Shipman, Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
Selson Engineering Co., Ltd.
Universal Grinding Wheel Co., Ltd.

Grinding & Polishing Machinery

Alldays & Onions, Ltd.
Associated British Machine Tool Makers, Ltd
Brinjes & Goodwin, Ltd.
Canning (W.) & Co.
Greenwood & Batley, Ltd.
Holroyd (John) & Co., Ltd.
Matthews & Yates, Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
Selson Engineering Co., Ltd.

Grinding Machinery for Cereals (*See "Flour Mill Machinery."*)

Grindstones & Fittings

Holroyd (John) & Co., Ltd.
Universal Grinding Wheel Co., Ltd.

Grommets & Sail Eyelets

Cartland (James) & Son, Ltd.
Harrison & Co.

Guaiacol

Evans, Sons, Lescher & Webb, Ltd
May & Baker, Ltd.

Guards, Lawn & Tree

Bain (William) & Co., Ltd.
Bayliss, Jones & Bayliss, Ltd.
Carron Company.

Guards, Machinery & Various

Braby (Frederick) & Co., Ltd.
Bulpitt & Sons, Ltd.
Crittall Manufacturing Co., Ltd.
Ludlow Bros. (1913), Ltd.
Williams (Edward).

Gums

Boake (A.), Roberts & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Waterlow & Sons Ltd.

Gun-metal (*See "Brass and Bronze."*)

Guns (Naval & Field), & Mountings

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Beardmore (William) & Co., Ltd.
Greenwood & Batley, Ltd.
Vickers, Ltd.

Guns, Sporting (*See "Fire-arms."*)

Gun Sights, Field & Naval

Chance Bros. & Co., Ltd.
Consolidated Signal Co., Ltd.
Cooke (T.) & Sons, Ltd.
Vickers, Ltd.

Gunpowder (*See "Explosives."*)

Gutta-percha (*See "Rubber, etc."*)

Gutta-percha Machinery

(*See "India-rubber, Gutta-percha and Balata Machinery."*)

Gutters

Braby (Frederick) & Co., Ltd.
Carron Company.
Harvey (G. A.) & Co. (London), Ltd.
Ludlow Bros. (1913), Ltd.
Measures Bros. (1911), Ltd.
Orr, Watt & Co., Ltd.
Westwood (Joseph) & Co., Ltd.

Gymnastic Appliances

Piggott Bros. & Co., Ltd.

Gyroscopes

Brown (S. G.), Ltd.
Greenwood & Batley, Ltd.

H

Hacking Knives (*See "Knives, Glaziers', etc."*)

Hairpins

Newey Bros., Ltd.
Tayler (D. F.) & Co., Ltd.

Hairpins, Ornamental & Fancy

Aberdeen Comb Works Co., Ltd.
Tayler (D. F.) & Co., Ltd.

Hairpins, Steel

Tayler (D. F.) & Co., Ltd.

Half-Hose (*See "Hosiery."*)

Hammers, Hand

Alldays & Onions, Ltd.
Andrew (Jno. Hy.) & Co., Ltd.
Beardshaw (J.) & Son, Ltd.
Hadfields, Ltd.
Hardy Patent Pick Co., Ltd.
Jonas & Colver, Ltd.
Kayser, Ellison & Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.
Turton Bros. & Matthews, Ltd.
Yates (John) & Co., Ltd.

Hammers, Power

Alldays & Onions, Ltd
Beyer, Peacock & Co., Ltd.
Carron Company.
Greenwood & Batley, Ltd.
Holman Bros., Ltd.

Hammers, Sledge & Masons'

Alldays & Onions, Ltd.
Andrew (Jno. Hy.) & Co., Ltd
Beardshaw (J.) & Son, Ltd.
Carron Company.
Hadfields, Ltd.
Hardy Patent Pick Co., Ltd.
Jonas & Colver, Ltd.
Osborn (Samuel) & Co., Ltd.
Turton Bros. & Matthews, Ltd.
Sanderson Bros. & Newbould, Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.

Hammers, Steam

Brightside Foundry & Engineering Co., Ltd.
Davy Bros., Ltd.
Hill (J. & P.).
Thwaites Bros., Ltd.

Hammocks

Piggott Bros. & Co., Ltd

Handkerchiefs, Cotton

Brown (John S.) & Sons, Ltd.
Calico Printers' Association, Ltd.
County Down Weaving Co., Ltd.
Haworth (Richard) & Co., Ltd.
Jones Bros., Ltd.
Rose, Hewitt & Co.
Tootal, Broadhurst, Lee Co., Ltd.
United Turkey Red Co., Ltd.
Wilkinson (John).

Handkerchiefs, Linen

Brown (John S.) & Sons, Ltd.
County Down Weaving Co., Ltd.
Haworth (Richard) & Co., Ltd.

Handkerchiefs, Silk

Walker Bros.

Handles, Door (*See "Door Furniture."*)

Handles Metal (Chest, &c.)

(*See "Brassfoundry and Ironmongery."*)

Handles for Tools

Central Aircraft Co.
Hardy Patent Pick Co., Ltd.
Kayser, Ellison & Co., Ltd.
Lebus (Harris).
Remer (John) & Co., Ltd.

Hand Tools, Agricultural

(*See "Agricultural Implements."*)

Hand Tools, Blacksmiths'

Alldays & Onions, Ltd.
Andrew (Jno. Hy.) & Co., Ltd
Balfour (Arthur) & Co., Ltd.
Hardy Patent Pick Co., Ltd.
Jonas & Colver, Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
Osborn (Samuel) & Co., Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.
Turton Bros. & Matthews, Ltd.

Hand Tools, Boot & Shoe Makers'

Smith (Thomas) & Sons, of Saltley, Ltd.

Hand Tools, Carpenters' & Joiners'

Jonas & Colver, Ltd.
Kayser, Ellison & Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.
Wright, Bindley & Gell, Ltd.
Yates (John) & Co., Ltd.

Hand Tools, Coopers'

Kayser, Ellison & Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd

Hand Tools, Coachbuilders' & Wheelwrights'
Alldays & Onions. Ltd.
Osborn (Samuel) & Co., Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.

Hand Tools, Engineers' & Fitters'
Alldays & Onions, Ltd.
Balfour (Arthur) & Co., Ltd.
Beardshaw (J.) & Son, Ltd.
English Electric Co., Ltd.
Garrard & Co., Ltd.
Hardy Patent Pick Co., Ltd.
Holroyd (John) & Co., Ltd.
Hooker (Peter), Ltd.
Jonas & Colver, Ltd.
Jones (A. A.) & Shipman, Ltd.
Kayser, Ellison & Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Robinhood Engineering Works, Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.
Turton Bros. & Matthews, Ltd.
Vickers, Ltd.

Hand Tools, Engravers'
Sanderson Bros. & Newbould Ltd.

Hand Tools, Farriers'
Alldays & Onions, Ltd.
Balfour (Arthur) & Co., Ltd.
Hardy Patent Pick Co. Ltd.
Kayser, Ellison & Co., Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.

Hand Tools, Garden
Hardy Patent Pick Co., Ltd.
Kayser, Ellison & Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Yates (John) & Co., Ltd.

Hand Tools, Masons' & Miners'
Balfour (Arthur) & Co., Ltd.
Hardy Patent Pick Co., Ltd.
Holman Bros., Ltd.
Jonas & Colver, Ltd.
Osborn (Samuel) & Co., Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.

Hand Tools, Motor
Abingdon Works, Ltd.
Alldays & Onions, Ltd.
Smith (S.) & Sons (Motor Accessories), Ltd.

Hand Tools, Moulders' & Foundry
Alldays & Onions, Ltd.
Jonas & Colver, Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.
Turton Bros. & Matthews, Ltd.

Hand Tools, Painters', Paperhangers' & Glaziers'
Kayser, Ellison & Co., Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.

Hand Tools, Carving
Osborn (Samuel) & Co., Ltd.
Sanderson Bros. & Newbould, Ltd.

Hand Tools, Plumbers' & Pipe Fitters'
Alldays & Onions, Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.
Turton Bros. & Matthews, Ltd.

Hand Tools, Pneumatic
Andrew (Jno. Hy.) & Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Balfour (Arthur) & Co., Ltd.
Beardshaw (J.) & Son, Ltd.
Climax Rock Drill & Engineering Works, Ltd.
Consolidated Signal Co., Ltd.
English Electric Co., Ltd.
Hardy Patent Pick, Co., Ltd.
Holman Bros., Ltd.
Osborn (Samuel) & Co., Ltd.
Turton Bros. & Matthews, Ltd.

Hand Tools, Saddlers' & Leather Workers'
Smith (Thomas) & Sons, of Saltley, Ltd.

Hand Tools, Sundry, Small Steel (Steel Toys)
Smith (Thomas) & Sons, of Saltley, Ltd.

Hand Tools, Tinsmiths'
Alldays & Onions, Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.

Hand Tools, Upholsterers'
Smith (Thomas) & Sons, of Saltley, Ltd.

Hand Tools, Watchmakers'
Smith (Thomas) & Sons, of Saltley, Ltd.

Hangers & Brackets
(See "Shafting and Gearing.")

Harbour Plant
(See "Dock and Shipyard Plant.")

Hardies, Smiths'
(See "Hand Tools, Blacksmiths'.")

Hardware, Builders'
(See "Ironmongery, Builders'.")

Hardware, Household
(See "Brass Foundry," "Hollow-ware" and "Ironmongery, etc.")

Hardware, Railway Carriage
(See "Brassfoundry," "Locks," etc.)

Hardware, Trunk & Box
(See "Locks, Cabinet, Trunk and Box.")

Hardware, Window
(See "Brassfoundry" and "Ironmongery.")

Harness & Saddlery
Harrod's, Ltd.
Hepburn, Gale & Ross, Ltd.

Harness & Saddlery Furniture & Ornaments.
Smith (John), Ltd.

Harpoons
Greener (W. W.), Ltd.

Harrows
Agricultural & General Engineers, Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Lister (R. A.) & Co., Ltd.
Ransomes, Sims & Jefferies, Ltd.

Harvesters *(See "Agricultural Machinery.")*

Hat & Coat Hooks
(*See "Brassfoundry" and "Ironmongery."*)

Hatches, Ships', &c.
Mechans, Ltd.
Short Bros. (Rochester & Bedford), Ltd.
Tees Side Bridge & Engineering Works, Ltd
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.

Hatchets (*See "Axes."*)

Hats, Felt
Hubbard (Stewart).

Hats, Various (*See also "Millinery."*)
Fabricless Products, Ltd.

Haulage Rollers & Pulleys
Fowler (John) & Co. (Leeds.), Ltd.
Hadfields, Ltd.
Markham & Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Sandycroft, Ltd.
Wigglesworth (Frank) & Co., Ltd.
Wild (M. B.) & Co., Ltd.
Wilkins Wire Rope Co., Ltd.

Hauling & Winding Machinery
(*See "Winding Machinery."*)

Houses, Portable (*See "Buildings, Portable."*)

Headgears
Bain (William) & Co., Ltd.
Braithwaite & Co.
Cleveland Bridge & Engineering Co., Ltd.
Head, Wrightson & Co., Ltd.
Holman Bros., Ltd.
Lanarkshire Steel Co., Ltd.
Markham & Co., Ltd.
Mechans, Ltd.
Plowright Bros., Ltd.
Sandycroft, Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Whessoe Foundry Co., Ltd.
Wild (M. B.) & Co., Ltd.
Wood (Edward) & Co., Ltd.

Headlights, Locomotive, Streetcar, &c.
Bulpitt & Sons, Ltd.
Collins (Christopher), Ltd.
Johnson & Phillips, Ltd.
Parsons (C. A.) & Co., Ltd.
Smith (S.) & Sons (Motor Accessories), Ltd.
Stone (J.) & Co., Ltd.

Heaters (for Soldering Irons, Laundry Irons, &c.)
Alldays & Onions, Ltd.
Brinjes & Goodwin, Ltd.
Carron Company.
Glover & Main, Ltd.
Monometer Manufacturing Co. (1918), Ltd.
Richmond Gas Stove & Meter Co., Ltd.
Wright (John) & Eagle Range, Ltd.

Heating & Ventilating Plant.
Brightside Foundry & Engineering Co., Ltd.
Carron Company.
Davidson & Co., Ltd.
General Electric Co., Ltd.
Hollings & Guest, Ltd.
Matthews & Yates, Ltd.
Musgrave & Co., Ltd.
Musgrave (John) & Sons, Ltd.
Newton, Chambers & Co., Ltd.
Sturtevant Engineering Co., Ltd.
Wright (John) & Eagle Range, Ltd.

Heels, Rubber (*See "Rubber Soles and Heels."*)

Heliographs (*See "Instruments, Optical."*)

Helmets, Metal
Allen (Edgar) & Co., Ltd.
Hadfields, Ltd.
Jennens & Co., Ltd.
Osborn (Samuel) & Co., Ltd.

Herbs, Dried
Crosse & Blackwell (Mfg. Co.), Ltd.

Hexamine
Boots Pure Drug Co., Ltd.
May & Baker, Ltd.

Hinges, Brass & Bronze
Brockhouse (J.) & Co., Ltd.
Harrison & Co.
Smith (John), Ltd.
Stone (J.) & Co., Ltd.

Hinges, Iron & Steel
Brockhouse (J.) & Co., Ltd.
Harrison & Co.
Smith (John), Ltd.

Hob-nails (*See "Nails."*)

Hods, Coal (*See "Hollow-ware."*)

Hoes, Garden & Field
(*See "Hand Tools, Gardening."*)

Hoes, Plantation
Hardy Patent Pick Co. Ltd.
Osborn (Samuel) & Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Yates (John) & Co., Ltd.

Hoists
Alldays & Onions, Ltd.
Bullivant & Co., Ltd.
Clarke, Chapman & Co., Ltd.
Holman Bros., Ltd.
Holt & Willetts.
Simon (Henry), Ltd.
Wild (M. B.) & Co., Ltd.
Youngs.

Hoists, Boat
Allen (W. H.), Sons & Co., Ltd.
British Mannesmann Tube Co., Ltd.
Bullivant & Co., Ltd.
Carron Company.
Clarke, Chapman & Co., Ltd.
Holt & Willetts.
Snowdon, Sons & Co., Ltd.
Stewarts & Lloyds, Ltd
Stothert & Pitt, Ltd.
Vickers, Ltd.

Hoists, Electric

Allen (W. H.), Sons & Co., Ltd.
Armstrongs & Main, Ltd.
Callender's Cable & Construction Co., Ltd.
Clarke, Chapman & Co., Ltd.
Craven Bros. (Manchester), Ltd.
English Electric Co., Ltd
Head, Wrightson & Co., Ltd.
General Electric Co., Ltd. (The)
Holman Bros., Ltd.
Holt & Willetts.
Ransomes & Rapier, Ltd.
Sandycroft, Ltd.
Stothert & Pitt, Ltd.
Thwaites Bros., Ltd.
Wild (M. B.) & Co., Ltd.
Wood (Hugh) & Co., Ltd

Hoists, Hydraulic

Armstrongs & Main, Ltd.
Berry (Henry) & Co.. Ltd.
Craven Bros. (Manchester), Ltd.
Fielding & Platt, Ltd.
Glenfield & Kennedy, Ltd.
Head, Wrightson & Co., Ltd.
Hollings & Guest, Ltd

Hoists, Steam

Beyer, Peacock & Co , Ltd.
Clarke, Chapman & Co., Ltd.
Head, Wrightson & Co., Ltd.
Holman Bros., Ltd
Holt & Willetts.
Robey & Co., Ltd.
Ruston & Hornsby, Ltd.
Sandycroft, Ltd.
Wild (M. B.) & Co., Ltd.
Wood (Hugh) & Co., Ltd.

Holdfasts *(See "Nails, Wrought.")*

Hollow-ware, Aluminium

Braby (Frederick) & Co., Ltd.
Braime (T. F.) & Co., Ltd.
British Aluminium Co., Ltd.
Bulpitt & Sons, Ltd.
Buncher & Hazeler, Ltd.
Hancock, Corfield & Waller, Ltd.
Joseph (N. C.).
Suckling, Ltd.

Hollow-ware, Brass and Copper

Braime (T. F.) & Co., Ltd.
Bulpitt & Sons, Ltd.
Explosives Trades, Ltd.
Hancock, Corfield & Waller, Ltd.
Joseph (N. C.).
Sankey (Joseph) & Sons, Ltd.
Suckling, Ltd.

Hollow-ware, Cast Iron

Carron Company.
Lysaght (John), Ltd.

Hollow-ware, Enamelled

(See "Enamelled Ware.")

Hollow-ware, Galvanized Iron

Baldwins Ltd.
Braby (Frederick) & Co., Ltd.
Ludlow Bros. (1913), Ltd.
Lysaght (John), Ltd.
National Galvanisers, Ltd.
Sankey (Joseph) & Sons, Ltd.
Stewarts & Lloyds, Ltd.
Welsh Tinplate & Metal Stamping Co., Ltd.

Hollow-ware, Japanned

(See "Japanned Ware.")

Hollow-ware, Nickel-plated

Glover & Main, Ltd.
Sankey (Joseph) & Sons, Ltd.
Suckling, Ltd.

Hollow-ware, Silver-plated

(See "Silver-ware, Sterling and Plated.")

Hollow-ware, Steel

Braby (Frederick) & Co., Ltd.
Braime (T. F.) & Co., Ltd.
Harvey (G. A.) & Co. (London), Ltd.
Holt & Willetts.
Ludlow Bros. (1913), Ltd.
Lysaght (John), Ltd.
National Galvanisers, Ltd.
Sankey (Joseph) & Sons, Ltd.
Welsh Tinplate & Metal Stamping Co., Ltd.

Hollow-ware, Tinned *(See "Tinware.")*

Hollow-ware, Wrought Iron

Braby (Frederick) & Co., Ltd.
Harvey (G. A.) & Co. (London), Ltd.
Holt & Willetts.
Ludlow Bros. (1913), Ltd.
Lysaght (John), Ltd.
National Galvanisers, Ltd.
Sankey (Joseph) & Sons, Ltd.
Welsh Tinplate & Metal Stamping Co., Ltd.

Hones *(See "Oil Stones.")*

Honey

Evans, Sons, Lescher & Webb, Ltd.
Globe Refining Co., Ltd.
Simpson (William) (Manchester), Ltd.

Hooks, Bill & Bush

Osborn (Samuel) & Co., Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.

Hooks, Button

Terry (Herbert) & Sons, Ltd.

Hooks, Curtain, Coat, Moulding, &c.

(See "Brassfoundry" and "Ironmongery, etc.")

Hooks & Eyes for Clothing, Tents, &c.

Buttons, Ltd.
Jennens & Co., Ltd.
Newey Bros., Ltd.
Tayler (D F.) & Co., Ltd.

Hooks, Reaping *(See "Scythes and Sickles.")*

Hoppers

Braby (Frederick) & Co., Ltd.
Clayton, Son & Co., Ltd.
Head, Wrightson & Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Ludlow Bros. (1913), Ltd.
Matthews & Yates, Ltd.
Mechans, Ltd.
Newton, Chambers & Co., Ltd.
Whessoe Foundry Co., Ltd.

Horn & Imitation Horn Novelties & Fancy Goods

Aberdeen Comb Works Co., Ltd.

Horn, Imitation (Sheets, Rods, &c.)

Aberdeen Comb Works Co., Ltd.

Horns, Fog *(See "Fog-horns.")*

Horns, Motor Car, Cycle, &c.

Explosives Trades, Ltd.
Lucas (Joseph), Ltd.
Moseley (David) & Sons, Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
Smith (S.) & Sons (Motor Accessories), Ltd.
Suckling, Ltd.
Vickers, Ltd.

Horse Clippers, Machine

(See "Clippers, Machine, Animal.")

Horse Shoe Nails *(See "Nails, Horse Shoe.")*

Horse Shoes

Cooke (William) & Co., Ltd.

Horse Shoe Pads

Dick (R. & J.), Ltd.
Macintosh (Chas.) & Co., Ltd.
North British Rubber Co., Ltd.
Warne (William) & Co., Ltd.

Horticultural Fittings

(See "Brassfoundry, Horticultural.")

Horticultural Tools

(See "Hand Tools, Garden.")

Hose, Brake

India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Greengate & Irwell Rubber Co., Ltd.
Macintosh (Chas.) & Co., Ltd.
North British Rubber Co., Ltd.
Spencer (George), Moulton & Co., Ltd.
Vacuum Brake Co., Ltd.
Warne (Wm.) & Co., Ltd.

Hose, Canvas & Linen

Bright (John) & Bros., Ltd.
British Oxygen Co., Ltd.
Glenfield & Kennedy, Ltd.
Moseley (David) & Sons, Ltd.
Stott (James), Ltd.
Warne (William) & Co., Ltd.

Hose, India-rubber

Avon India Rubber Co., Ltd.
Bates (W. & A.), Ltd.
British Oxygen Co., Ltd.
Cow (P. B.) & Co., Ltd.
Greengate & Irwell Rubber Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Ingram (J. & G.) & Son, Ltd.
Macintosh (Chas.) & Co., Ltd.
Moseley (David) & Sons, Ltd.
North British Rubber Co., Ltd.
Spencer (George), Moulton & Co., Ltd.
Vickers, Ltd.
Warne (William) & Co., Ltd.

Hose Reels

Cow (P. B.) & Co., Ltd.
Glenfield & Kennedy, Ltd.
Ludlow Bros. (1913) Ltd.
North British Rubber Co., Ltd.

Hose, Steam Heating

Bell's United Asbestos Co., Ltd.
Greengate & Irwell Rubber Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Macintosh (Chas.) & Co., Ltd.
North British Rubber Co., Ltd.
Spencer (George), Moulton & Co., Ltd.
Warne (Wm.) & Co , Ltd.

Hose, Flexible & Metallic

(See "Tubing, Flexible.")

Hose Fittings & Couplings

(See "Brassfoundry, Gas, Water and Steam," and "Horticultural.")

Hosiery, Artificial Silk

Brocklehurst (Sydney).
Brough, Nicholson & Hall, Ltd.
Corah (N.) & Sons.
Kershaw, Leese & Co., Ltd.
Lister & Co., Ltd.
Moore, Eady & Murcott Goode, Ltd.
Neckwear, Ltd.
Raven (W.) & Co., Ltd.
Robinson Bros. (Burbage), Ltd.
Russell (B.) & Sons.
Simpkin, Son & Emery.
Toone & Wells, Ltd.
Walker Bros.
Wardle & Davenport, Ltd.
Wolsey, Ltd.

Hosiery, Cotton

Atkins Bros.
Bott (George) & Son.
Davis (Samuel) & Sons.
Devas, Routledge & Co., Ltd.
Hearth (James) & Co.
Howe (W. & H.).
Johnson & Barnes, Ltd.
Kershaw, Leese & Co., Ltd.
Moore, Eady & Murcott Goode, Ltd.
Neckwear, Ltd.
Pool, Lorrimer & Tabberer.
Raven (W.) & Co., Ltd.
Rowley (R.) & Co., Ltd.
Robinson Bros., Ltd.
Robinson Bros. (Burbage), Ltd.
Simpkin, Son & Emery.
Toone & Wells, Ltd.
United Turkey Red Co., Ltd.
Wolsey, Ltd.

Hosiery, Elastic

Wolsey, Ltd.

Hosiery, Fancy

Bott (George) & Son.
Brocklehurst (Sydney).
Buckler (William) & Co., Ltd.
Corah (N.) & Sons.
Davis (Samuel) & Sons.
Kershaw, Leese & Co., Ltd.
Moore, Eady & Murcott Goode, Ltd.

Hosiery, Fancy—*continued.*

Neckwear, Ltd.
Plant (H. W.) & Co., Ltd.
Pool, Lorrimer & Taberer.
Rowley (R.) & Co., Ltd.
Russell (B.) & Sons.
Simpkin, Son & Emery.
Toone & Wells, Ltd.
United Turkey Red Co., Ltd.
Wardle & Davenport, Ltd.
Wolsey, Ltd.

Hosiery, Lisle

Atkins Bros.
Bott (George) & Son.
Davis (Samuel) & Sons.
Hearth (James) & Co.
Howe (W. & H.).
Johnson & Barnes, Ltd.
Moore, Eady & Murcott Goode, Ltd.
Neckwear, Ltd.
Robinson Bros. (Burbage), Ltd.
Robinson Bros., Ltd.
Rowley (R.) & Co., Ltd.
Simpkin, Son & Emery.
Toone & Wells, Ltd.
Wolsey, Ltd.

Hosiery Machinery

Cotton (William), Ltd.
Mitchell (William) (Pens), Ltd.
Pool, Lorrimer & Tabberer.

Hosiery, Silk

Atkins Bros.
Davis (Samuel) & Sons.
Howe (W. & H.).
Johnson & Barnes, Ltd.
Moore, Eady & Murcott Goode, Ltd.
Neckwear, Ltd.
Pool, Lorrimer & Tabberer.
Raven (W.) & Co., Ltd.
Robinson Bros. (Burbage), Ltd.
Robinson Bros., Ltd.
Toone & Wells, Ltd.
Wardle & Davenport, Ltd
Wolsey, Ltd.

Hosiery, Woollen

Atkins Bros.
Bott (George) & Son.
Brocklehurst (Syd).
Corah (N.) & Sons.
Davis (Samuel) & Sons.
Devas, Routledge & Co., Ltd.
Hearth (James) & Co.
Howe (W. & H.).
Johnson & Barnes, Ltd.
Kemp (Arthur).
Moore, Eady & Murcott Goode, Ltd.
Neckwear, Ltd.
Plant (H. W.) & Co., Ltd.
Pool, Lorrimer & Tabberer.
Raven (W.) & Co., Ltd.
Robinson Bros. (Burbage). Ltd.
Robinson Bros., Ltd.
Rowley (R.) & Co., Ltd.
Russell (B.) & Sons.
Simpkin, Son & Emery.
Toone & Wells, Ltd.
Turner & Jarvis, Ltd.
United Turkey Red Co., Ltd.
Walker Bros.
Wardle & Davenport, Ltd.
Wolsey, Ltd.

Hospital Equipment

Mandleberg (J.) & Co., Ltd.
Manlove, Alliott & Co., Ltd.
Maw (S.) Son & Sons, Ltd.

Hulling Machinery (Coffee, Rice, Cotton, &c.)

(*See "Rice Machinery," etc.*)

Hurdles, Metal

(*See "Fencing and Gates, Steel and Iron."*)

Hydrants

Blakeborough (J.) & Sons, Ltd.
Brightside Foundry & Engineering Co., Ltd.
Glenfield & Kennedy, Ltd.
Stone (J.) & Co., Ltd.
United Brassfounders & Engineers, Ltd.

Hydraulic Accessories

Berry (Henry) & Co., Ltd.
Blakeborough (J.) & Sons, Ltd.
Boving & Co., Ltd.
Brightside Foundry & Engineering Co., Ltd.
Bridge (David) & Co., Ltd.
Fielding & Platt, Ltd.
Glenfield & Kennedy, Ltd.
Greenwood & Batley, Ltd.
Hollings & Guest, Ltd.
Kent (George), Ltd.
Leeds Forge Co., Ltd.
Manlove, Alliott & Co., Ltd.
Stanton Ironworks Co., Ltd.
United Brassfounders & Engineers, Ltd.
Vickers, Ltd.

Hydraulic Accumulators

Armstrongs & Main, Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Arrol (Sir William) & Co., Ltd.
Berry (Henry) & Co., Ltd.
Bridge (David) & Co., Ltd.
Brightside Foundry & Engineering Co., Ltd.
Davy Bros., Ltd.
Fielding & Platt, Ltd.
Glenfield & Kennedy, Ltd.
Greenwood & Batley, Ltd.
Hadfields, Ltd.
Hollings & Guest, Ltd.
Lee, Howl & Co., Ltd.
Manlove, Alliott & Co., Ltd.
Markham & Co., Ltd.
Mechans, Ltd.
Piggott (Thomas) & Co., Ltd.
Rose, Downs & Thompson, Ltd.
Wild (M. B.) & Co., Ltd.

Hydraulic Buffer Stops

(*See "Railway Buffers and Buffer Stops."*)

Hydraulic Elevators

(*See "Lifts and Elevators."*)

Hydraulic Engines

Armstrongs & Main, Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Berry (Henry) & Co., Ltd.
Fielding & Platt, Ltd.
Glenfield & Kennedy, Ltd.
Greenwood & Batley, Ltd.
Manlove, Alliott & Co., Ltd.

Hydraulic Intensifiers

Armstrongs & Main, Ltd.
Berry (Henry) & Co., Ltd.
Bridge (David) & Co., Ltd.
Brightside Foundry & Engineering Co., Ltd.
Davy Bros., Ltd.
Fielding & Platt, Ltd.
Glenfield & Kennedy, Ltd.
Greenwood & Batley, Ltd.
Hollings & Guest, Ltd.
Manlove, Alliott & Co., Ltd.
Markham & Co., Ltd.

Hydraulic Machinery

Armstrongs & Main, Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Arrol (Sir William) & Co., Ltd.
Berry (Henry) & Co., Ltd.
Blakeborough (J.) & Sons, Ltd.
Boving & Co., Ltd.
Bridge (David) & Co., Ltd.
Brightside Foundry & Engineering Co., Ltd.
Davy Bros., Ltd.
Fielding & Platt, Ltd.
Glenfield & Kennedy, Ltd.
Greenwood & Batley, Ltd.
Hollings & Guest, Ltd.
Kent (George), Ltd.
Manlove, Alliott & Co., Ltd.
Markham & Co., Ltd.
Sandycroft, Ltd.
Wild (M. B.) & Co., Ltd.

Hydraulic Oil Transmission Gears

Vickers, Ltd.

Hydraulic Presses

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Arrol (Sir William) & Co., Ltd.
Berry (Henry) & Co., Ltd.
Bridge (David) & Co., Ltd.
Brightside Foundry & Engineering Co., Ltd.
Davy Bros , Ltd.
Fielding & Platt, Ltd.
Glenfield & Kennedy, Ltd.
Greenwood & Batley, Ltd.
Hollings & Guest, Ltd.
Manlove, Alliott & Co., Ltd.
Markham & Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Robertson & Orchar, Ltd.
Rose, Downs & Thompson, Ltd.
Wild (M. B.) & Co., Ltd.

Hydraulic Pumps *(See "Pumps.")*

Hydraulic Rams

Arrol (Sir William) & Co., Ltd.
Berry (Henry) & Co., Ltd.
Brightside Foundry & Engineering Co., Ltd.
Chesterfield Tube Co., Ltd
Darlington Forge, Ltd. (The).
Fielding & Platt, Ltd.
Glenfield & Kennedy, Ltd.
Hadfields, Ltd.
Hollings & Guest, Ltd.
Manlove, Alliott & Co., Ltd.
Stewarts & Lloyds, Ltd.

Hydro-extractors

Brinjes & Goodwin, Ltd.
Manlove, Alliott & Co., Ltd.

Hydrogen

Castner-Kellner Alkali Co., Ltd.
Hydrogen, Oxygen & Plant Co., Ltd.

Hydrogen Gas Plant

Cutler (Samuel) & Sons, Ltd.
Hydrogen, Oxygen & Plant Co., Ltd.
Mechans, Ltd.
Newton, Chambers & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Whessoe Foundry Co., Ltd.

Hydrogen Peroxide

Evans, Sons, Lescher & Webb, Ltd.
Lye (T.) & Sons.
May & Baker, Ltd.

Hydrokinone

Evans, Sons, Lescher & Webb, Ltd
May & Baker, Ltd.

Hydrometers *(See "Thermometers, etc.")*

Hydroplanes

Aircraft Manufacturing Co., Ltd.
Short Bros. (Rochester & Bedford), Ltd.
Thornycroft (John I.) & Co., Ltd.
Vickers, Ltd.
Whiffen & Sons, Ltd.

Hyoscine & Salts

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Hyoscyamine & Salts

Boots Pure Drug Co., Ltd.
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Hypo (for Photographic Use)

(See "Sodium Hyposulphite.")

Hypophosphites

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

I

Ice Chests

Kent (George), Ltd.

Ice Cream Powders

Simpson (William) (Manchester), Ltd.

Ice-making Machinery

Blackwell (Robert W.) & Co., Ltd.
Hall (J. & E.), Ltd.
Lightfoot Refrigeration Co., Ltd.
Liverpool Refrigeration Co., Ltd.
Mechans, Ltd.
Piggott (Thomas) & Co., Ltd.
Pulsometer Engineering Co., Ltd.
Ransomes & Rapier, Ltd.
Vickers, Ltd.

Ichthyol

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Illuminated Signs

(See "Signs, Advertising, Illuminated.")

Incandescent Electric Lamps
(See "Lamps.")

Incandescent Mantles *(See "Gas, etc.")*

Incinerators, Garbage
(See "Destructors, Refuse.")

Incubators
Lister (R. A.) & Co., Ltd.

India-rubber Goods *(See "Rubber, etc.")*

India-rubber, Gutta-percha & Balata Machinery
Berry (Henry) & Co., Ltd.
Bridge (David) & Co., Ltd.
Brinjes & Goodwin, Ltd.
Hardy Patent Pick Co., Ltd.
Hollings & Guest, Ltd
Vickers, Ltd.

Indigo Extracts & Solutions
British Dyestuffs Corporation Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Leitch (John W.) & Co.
Nagersheth (M.) & Sons.

Induction Coils
(See "Electro-medical Apparatus.")

Induline
British Dyestuffs Corporation, Ltd.
Leitch (John W.) & Co.

Injectors
Gresham & Craven, Ltd.
Hopkinson (J.) & Co., Ltd.
Jennings (George), Ltd.
United Brassfounders & Engineers, Ltd.
Vickers, Ltd.

Ink
Boots Pure Drug Co., Ltd.
Macniven & Cameron, Ltd.

Ink Stands & Wells
Setten & Durward.

Insecticides
Cooper (William) & Nephews.
Lawes' Chemical Manure Co., Ltd.
May & Baker, Ltd.
Snowdon, Sons & Co., Ltd.

Instruments, Astronomical
Cooke (T.) & Sons, Ltd.

Instruments, Dentists'
(See "Dentists' Requisites.")

Instruments, Drawing
Cooke (T.) & Sons, Ltd.
Halden (J.) & Co., Ltd.
Hall (B. J.) & Co., Ltd.
Norton & Gregory, Ltd.
Setten & Durward.

Instruments, Electrical
Callender's Cable & Construction Co., Ltd.
Coleman & Appleby, Ltd.
Crompton & Co., Ltd.
Duram, Ltd.
Ferranti, Ltd.
General Electric Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Johnson & Phillips, Ltd.
Mechans, Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Smith (S.) & Sons (Motor Accessories), Ltd.
Telegraph Construction & Maintenance Co., Ltd.

Instruments, Electrical Recording
Crompton & Co., Ltd.
Edison Swan Electric Co., Ltd.
General Electric Co., Ltd.
Glenfield & Kennedy, Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Smith (S.) & Sons (Motor Accessories), Ltd.

Instruments, Mathematical
Cooke (T.) & Sons, Ltd.
Hall (B. J.) & Co., Ltd.
Norton & Gregory, Ltd.
Setten & Durward.

Instruments, Navigational
Barr & Stroud, Ltd.
Cooke (T.) & Sons, Ltd.
Kent (George), Ltd.
Smith (S.) & Sons (Motor Accessories), Ltd
Vickers, Ltd.

Instruments, Optical
Barr & Stroud, Ltd.
Cooke (T.) & Sons, Ltd.
Halden (J.) & Co., Ltd.
Hall (B. J.) & Co., Ltd.

Instruments, Recording
Aircraft Manufacturing Co., Ltd.
Glenfield & Kennedy, Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Kent (George), Ltd.

Instruments, Surgical
Maw (S.), Son & Sons, Ltd.

Instruments, Surveying
Cooke (T.) & Sons, Ltd.
Halden (J.) & Co., Ltd.
Hall (B. J.) & Co., Ltd.

Instruments, Telegraphic
Brown (S. G.), Ltd.
General Electric Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.

Instruments, Telegraph Wireless
Brown (S. G.), Ltd.
General Electric Co., Ltd.
Marconi International Marine Communication Co., Ltd.
Marconi's Wireless Telegraph Co., Ltd.
Thornycroft (John I.) & Co., Ltd.

Instruments, Telephone Wireless
Brown (S. G.), Ltd.
Edison Swan Electric Co., Ltd.
General Electric Co., Ltd.
Marconi International Marine Communication Co., Ltd.
Marconi's Wireless Telegraph Co., Ltd.
Telephone Manufacturing Co., Ltd.

Insulated Ships

Fairfield Shipbuilding & Engineering Co., Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Hill (Charles) & Sons, Ltd.
Laing (Sir James) & Sons, Ltd.
Liverpool Refrigeration Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Thompson (Joseph L.) & Sons, Ltd.
Thornycroft (John I.) & Co., Ltd.
White (J. Samuel) & Co., Ltd.
Yarrow & Co., Ltd.

Insulators, Electrical

Blackwell (Robert W.) & Co., Ltd.
British Insulated & Helsby Cables, Ltd.
Callender's Cable & Construction Co., Ltd.
Edison Swan Electric Co., Ltd.
Electric Ordnance Accessories Co., Ltd.
General Electric Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Vickers, Ltd.

Insulating Materials

Anderson (D.) & Son, Ltd.
Beldam Packing & Rubber Co., Ltd.
Bell's United Asbestos Co., Ltd.
Blackwell (Robert W.) & Co., Ltd.
British Insulated & Helsby Cables, Ltd.
Callender's Cable & Construction Co., Ltd.
Clark (Robert Ingham) & Co., Ltd.
Docker Bros., Ltd.
Duckham (Alexander) & Co., Ltd.
Edison Swan Electric Co., Ltd.
Henley's (W. T.) Telegraph Works Co., Ltd.
Hobdell, Way & Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Jenson & Nicholson, Ltd.
Johnson & Phillips, Ltd.
Kenyon (Wm.) & Sons, Ltd.
Major & Co., Ltd.
Snowdon, Sons & Co., Ltd.
Turner Bros. Asbestos Co., Ltd.
Vickers, Ltd.
Wilson Bros. Bobbin Co., Ltd.

Insulators (Porcelain, Glass, &c.)

Blackwell (Robert W.) & Co., Ltd.
Bullers, Ltd.
Chloride Electrical Storage Co., Ltd.
Doulton & Co., Ltd.
Edison Swan Electric Co., Ltd.
Electric Ordnance Accessories Co., Ltd.
General Electrical Co., Ltd.
Vickers, Ltd.

Insurance

Car & General Insurance Corporation, Ltd.
Lamotte (B.) & Co., Ltd.
Liverpool & London & Globe Insurance Co., Ltd.
Sedgwick Collins & Co., Ltd.
Yorkshire Insurance Co., Ltd.

Iodides

British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Iodine

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Iodoform

Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Iodopyrol

May & Baker, Ltd.

Iridium & Salts

Johnson, Matthey & Co., Ltd.
May & Baker, Ltd.
Mond Nickel Co., Ltd.

Iron & Steel Works Plant

Alldays & Onions, Ltd.
Arrol (Sir William) & Co., Ltd.
Bayliss, Jones & Bayliss, Ltd.
Braithwaite & Co.
Brightside Foundry & Engineering Co., Ltd
Cleveland Bridge & Engineering Co., Ltd.
Davy Bros., Ltd.
Fielding & Platt, Ltd.
Hollings & Guest, Ltd.
Holt & Willetts.
Holroyd (John) & Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Markham & Co., Ltd.
Measures Bros. (1911), Ltd.
Motherwell Bridge Co., Ltd.
Newton, Chambers & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Sheepbridge Coal & Iron Co., Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Thwaites Bros., Ltd.
Wright (John & Edwin), Ltd.

Iron & Steel Work, Art & Ornamental

Armstrongs & Main, Ltd.
Bain (William) & Co., Ltd.
Bayliss, Jones & Bayliss, Ltd.
Braby (Frederick) & Co., Ltd.
Carron Company.
Harvey (G. A.) & Co. (London), Ltd.
Measures Bros. (1911), Ltd.
Morton (Francis) & Co., Ltd.
Singer (J. W.) & Sons, Ltd.

Iron, Angle & Tee

Bayliss, Jones & Bayliss, Ltd.
Braithwaite & Co.
Brown (John) & Co., Ltd.
Consett Iron Co., Ltd.
Cooke (William) & Co., Ltd.
Heath (Robert) & Low Moor, Ltd.
Measures Bros. (1911), Ltd.
Monk Bridge Iron & Steel Co., Ltd
Pearson & Knowles Coal & Iron Co., Ltd.
Sheepbridge Coal & Iron Co., Ltd.
South Durham Steel & Iron Co., Ltd.
Taylor Bros. & Co., Ltd.

Iron, Band & Hoop

Adams (George) & Sons, Ltd.
Heath (Robert) & Low Moor, Ltd.
Measures Bros. (1911), Ltd.
Pearson & Knowles' Coal & Iron Co., Ltd.

Iron, Bar

Adams (George) & Sons, Ltd.
Bayliss, Jones & Bayliss, Ltd.
Cooke (William) & Co., Ltd.
Heath (Robert) & Low Moor, Ltd.
Measures Bros. (1911), Ltd.
Monk Bridge Iron & Steel Co., Ltd.
Parkes (E.) & Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Pearson & Knowles' Coal & Iron Co., Ltd.
Sheepbridge Coal & Iron Co., Ltd.
South Durham Steel & Iron Co., Ltd.
Taylor Bros. & Co., Ltd.
Thomas (Richard) & Co., Ltd.

Iron Billets & Blooms

Darlington Forge, Ltd. (The).
Gilbertson (W.) & Co., Ltd.
Hadfields, Ltd.
Heath (Robert) & Low Moor, Ltd.
Lysaght (John), Ltd.
Monk Bridge Iron & Steel Co., Ltd.
Taylor Bros. & Co., Ltd.

Iron Castings (*See "Castings, Iron."*)

Iron Fencing

(*See "Fencing and Gates, Steel and Iron."*)

Iron Girders

Armstrongs & Main, Ltd.
Arrol (Sir William) & Co., Ltd.
Bain (William) & Co., Ltd.
Braby (Frederick) & Co., Ltd.
Braithwaite & Co.
Clayton, Son & Co., Ltd.
Cleveland Bridge & Engineering Co., Ltd.
Dawnay (Archibald D.) & Sons, Ltd.
Heath (Robert) & Low Moor, Ltd.
Horseley Bridge & Engineering Co., Ltd.
Horsehay Co., Ltd.
Keay (E., C. & J.), Ltd.
Lysaght (John), Ltd.
Measures Bros. (1911), Ltd.
Mechans, Ltd.
Morton (Francis) & Co., Ltd.
Motherwell Bridge Co., Ltd.
Newton, Chambers & Co., Ltd.
Orr, Watt & Co., Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Westwood (Joseph) & Co., Ltd.
Wood (Edward) & Co., Ltd.

Ironmongery, Builders'

Brockhouse (J.) & Co., Ltd.
Erebus Manufacturing Co., Ltd.
Guest, Keen & Nettlefolds, Ltd.
Monometer Manufacturing Co. (1918), Ltd.

Ironmongery, Coach

Aircraft Manufacturing Co., Ltd.
Brockhouse (J.) & Co., Ltd.
Short Bros. (Rochester & Bedford), Ltd.

Ironmongery, Domestic

Bulpitt & Sons, Ltd.
Holroyd (John) & Co., Ltd.
Lysaght (John), Ltd.
National Galvanisers, Ltd.
Terry (Herbert) & Sons, Ltd.

Iron Ore

Baird (William) & Co., Ltd.
Brymbo Steel Co., Ltd.
Clay Cross Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Fergusson (N. G.) & Co., Ltd.
Heath (Robert) & Low Moor, Ltd.
Lysaght (John), Ltd.
Nagersheth (M.) & Sons.
Newton, Chambers & Co., Ltd.
Park Gate Iron & Steel Co., Ltd.
Pease & Partners, Ltd.
Redbourn Hill Iron & Coal Co., Ltd.
Sheepbridge Coal & Iron Co., Ltd.
Whitehaven Hematite Iron & Steel Co., Ltd.

Iron Perchloride

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
Howards & Sons, Ltd.

Iron Persulphate (Nitrate)

British Cotton & Wool Dyers' Association, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Iron, Pig

Baird (William) & Co., Ltd.
Barrow Hematite Steel Co., Ltd.
Bell Bros., Ltd.
Blaenavon Co., Ltd.
Bolckow, Vaughan & Co., Ltd.
Bradley & Foster, Ltd.
Brymbo Steel Co., Ltd.
Cargo Fleet Iron Co., Ltd.
Carron Company.
Clay Cross Co., Ltd.
Cochrane & Co. (Woodside), Ltd.
Consett Iron Co., Ltd.
Dorman, Long & Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Frodingham Iron & Steel Co., Ltd.
Guest, Keen & Nettlefolds, Ltd.
Hall & Pickles, Ltd.
Heath (Robert) & Low Moor, Ltd.
Lysaght (John), Ltd.
Merry & Cunninghame, Ltd.
Millom & Askam Hematite Iron Co., Ltd.
Newton, Chambers & Co., Ltd.
North Eastern Steel Co., Ltd.
North Lonsdale Iron & Steel Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Park Gate Iron & Steel Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Pease & Partners, Ltd.
Redbourn Hill Iron & Coal Co., Ltd.
Samuelson (Sir B.) & Co., Ltd.
Sheepbridge Coal & Iron Co., Ltd.
Skinningrove Iron Co., Ltd.
Stanton Ironworks Co., Ltd.
Staveley Coal & Iron Co., Ltd.
Whitehaven Hematite Iron & Steel Co., Ltd.

Iron Products (Chemical)

British Drug Houses, Ltd.
May & Baker, Ltd.

Iron Sections

Bayliss, Jones & Bayliss, Ltd.
Cooke (William) & Co., Ltd.
Dawnay (Archibald D.) & Sons, Ltd.
Heath (Robert) & Low Moor, Ltd.

Iron Sections—*continued.*

Measures Bros. (1911), Ltd.
Patent Shaft & Axletree Co., Ltd.
Pearson & Knowles Coal & Iron Co., Ltd.
Sheepbridge Coal & Iron Co., Ltd.
South Durham Steel & Iron Co., Ltd.

Iron, Sheet

Adams (George) & Sons, Ltd.
Baldwins, Ltd.
Braby (Frederick) & Co., Ltd.
Dorman, Long & Co., Ltd.
Gilbertson (W.) & Co., Ltd.
Gorse Galvanising Co., Ltd.
Ludlow Bros. (1913), Ltd.
Lysaght (John), Ltd.
Patent Shaft & Axletree Co., Ltd.

Iron, Sheet, Corrugated

Adams (George) & Sons, Ltd.
Armstrongs & Main, Ltd.
Baldwins, Ltd.
Braby (Frederick) & Co., Ltd.
Dawnay (Archibald D.) & Sons, Ltd.
Dorman, Long & Co., Ltd.
Gilbertson (W.) & Co., Ltd.
Gorse Galvanising Co., Ltd.
Ludlow Bros. (1913), Ltd.
Lysaght (John), Ltd.
Measures Bros. (1911), Ltd.
National Galvanisers, Ltd.

Iron Stampings

(*See "Stampings, Iron and Steel."*)

Iron Sulphate

British Drug Houses, Ltd.
Chance & Hunt, Ltd.
Cwmfelin Steel & Tinplate Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Grovesend Steel & Tinplate Co., Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.
Spencer, Chapman & Messel, Ltd.
United Alkali Co., Ltd.

Irons, Laundry

Aublet, Harry & Co., Ltd.
Carron Company.
Glover & Main, Ltd.
Wilson Bros. Bobbin Co., Ltd.
Wright (John) & Eagle Range, Ltd.

Irons, Branding

(*See "Branding Irons."*)

Ironwork, Architectural

Armstrongs & Main, Ltd.
Bayliss, Jones & Bayliss, Ltd.
Braby (Frederick) & Co., Ltd.
Carron Company.
Measures Bros. (1911), Ltd.
Motherwell Bridge Co., Ltd.
Newton, Chambers & Co., Ltd.
Singer (J. W.) & Sons, Ltd.

Ironwork, Builders'

Bayliss, Jones & Bayliss, Ltd.
Braby (Frederick) & Co., Ltd.
Braithwaite & Co.
Brockhouse (J.) & Co., Ltd.
Measures Bros. (1911), Ltd.
Monometer Manufacturing Co. (1918), Ltd.
Motherwell Bridge Co., Ltd.
Newton, Chambers & Co., Ltd.
Wood (Edward) & Co., Ltd.

Ironwork, Coach

(*See "Coach and Wagon Ironwork."*)

Ironwork, Ornamental

(*See "Iron and Steelwork, Art and Ornamental."*)

Irrigation Works Appliances

Fowler (John) & Co. (Leeds), Ltd.
Glenfield & Kennedy, Ltd.
Gwynnes, Ltd.
Hadfields, Ltd.
Kent (George), Ltd.
Piggott (Thomas) & Co., Ltd.
Pulsometer Engineering Co., Ltd.
Ransomes & Rapier, Ltd.
Stewarts & Lloyds, Ltd.

Isinglass

Boake (A.), Roberts & Co., Ltd.
Crosse & Blackwell (Mfg. Co.), Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Ivory Goods

(*See "Bone and Ivory Goods."*)

J

Jacketted Pans

Braby (Frederick) & Co., Ltd.
Bridge (David) & Co., Ltd.
Brightside Foundry & Engineering Co., Ltd.
Brinjes & Goodwin, Ltd.
British Aluminium Co., Ltd.
Carron Company.
Clayton, Son & Co., Ltd.
Cradley Boiler Co., Ltd.
Holmes (W. C.) & Co., Ltd.
Manlove, Alliott & Co., Ltd.
Mechans, Ltd.
Piggott (Thomas) & Co., Ltd.
United Brassfounders & Engineers, Ltd
Whessoe Foundry Co., Ltd.

Jacks, Lifting (Hydraulic)

Arrol (Sir William) & Co., Ltd.
Berry (Henry) & Co., Ltd.
Hollings & Guest, Ltd.
Holt & Willetts.
Youngs.

Jacks, Lifting (Screw)

Alldays & Onions, Ltd.
Cotterill (F. W.), Ltd.
Greener (W. W.), Ltd.
Holt & Willetts.
Hurst, Nelson & Co., Ltd.
Smith (S.) & Sons (Motor Accessories), Ltd.
Wolseley Sheep Shearing Machine Co., Ltd.
Youngs.

Jam-makers' Plant

Brinjes & Goodwin, Ltd.
British Aluminium Co., Ltd.

Jams & Jellies

Batger & Co.
Crosse & Blackwell (Mfg. Co.), Ltd.
Keiller (James) & Son, Ltd.
Maconochie Bros., Ltd.
Simpson (William) (Manchester), Ltd.
Watford Manufacturing Co., Ltd.
White, Tomkins & Courage, Ltd.

Japanned Ware

Bulpitt & Sons, Ltd.
Ludlow Bros. (1913), Ltd.
Tann (John), Ltd.
Welsh Tinplate & Metal Stamping Co., Ltd.

Jardinières

(*See "Iron and Steel Work, Art, etc."*)

Jars, Druggists' & Perfumers'

Evans, Sons, Lescher & Webb, Ltd.
Maw (S.), Son & Sons, Ltd.
Vickers, Ltd.

Jars, Sundry (*See "Stoneware."*)

Jewel Cases (*See "Cases, Leather, Various."*)

Jewellery

Dennison Watch Case Co., Ltd.
Garrard & Co., Ltd.
Ginder & Ginder.
Griffith (Henry) & Sons.
Nagersheth (M.) Sons.
Orbito Co., Ltd.
Pepper (A. J.) & Co., Ltd.

Jewellery (Imitation)

Collins (C. H.) & Sons, Ltd.
Edmonds (George), Ltd.

Jigs, Engineers'

Associated British Machine Tool Makers, Ltd.
Barr & Stroud, Ltd.
Beardmore (William) & Co., Ltd.
English Electric Co., Ltd.
Greenwood & Batley, Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Holroyd (John) & Co., Ltd.
Hooker (Peter), Ltd.
Lye (T.) & Sons.
Mountford (Frederick) (Birmingham), Ltd.
Robinhood Engineering Works, Ltd.
Smith (John), Ltd.
Vickers, Ltd.

Jigs, Mining

Holman Bros., Ltd.
Sandycroft, Ltd.

Jim Crows (*See "Rail Benders."*)

Joiners' Tools

(*See "Hand Tools, Carpenters'."*)

Joints, Expansion (*See "Expansion Joints."*)

Joists (*See "Iron Girders" and "Steel Joists."*)

Jugs (*See "Hollow-ware," "China-ware," etc.*)

Jute & Jute Goods

Boath (John), Junr. & Co., Ltd.
Dixon & Corbett & R. S. Newall & Co., Ltd.
Mitchell (Andrew) & Co., Ltd.
Nagersheth (M.) & Sons.
Scott (James) & Sons, Ltd.
Wright (John & Edwin), Ltd.

Jute Piece Goods

Boath (John) Junr. & Co., Ltd.
Faire Bros. & Co., Ltd.
Mitchell (Andrew) & Co., Ltd.
Scott (James) & Sons, Ltd.

K

Kaolin (*See "China Clay."*)

Kegs (*See "Drums, etc."*)

Kerbs (*See "Furniture, Hearth."*)

Kettles (*See "Hollow-ware," "Tin-ware," etc.*)

Kettles, Melting

Piggott (Thomas) & Co., Ltd.

Kettles, Steam Jacket

Ashwell & Nesbit, Ltd.
Brinjes & Goodwin, Ltd.
Clayton, Son & Co., Ltd.
Greenwood & Batley, Ltd.
Hancock, Corfield & Waller, Ltd.
Manlove, Alliott & Co., Ltd.
Mechans, Ltd.
Piggott (Thomas) & Co., Ltd.

Keys

Erebus Manufacturing Co., Ltd.
Mountford (Fredk.) (Birmingham), Ltd.

Kilns

Alldays & Onions, Ltd.
Boby (Robert), Ltd.
Head, Wrightson & Co., Ltd.
Mechans, Ltd.
Musgrave & Co., Ltd.
Newton, Chambers & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Vickers, Ltd.

Kitchens, Field

Brightside Foundry & Engineering Co., Ltd.

Kitchen Utensils

(*See "Hollow-ware," "Enamelled-ware," etc.*)

Knife-cleaning Machines

Holroyd (John) & Co., Ltd.
Kent (George), Ltd.

Knitting Machines

Holroyd (John) & Co., Ltd.

Knitting Yarns (*See "Yarns, etc."*)

Knitted Fabrics

Brough, Nicholson & Hall, Ltd.
Cox Bros. & Skelsey, Ltd.
Neckwear, Ltd.
Plant (H. W.) & Co., Ltd.
United Turkey Red Co., Ltd.
Wolsey, Ltd.

Knitted Goods
(See "Hosiery," "Knitted Fabrics," "Scarves, etc.," and "Underwear.")

Knives, Butchers', Cooks', Oyster, &c.
Greener (W. W.) Ltd.

Knives & Cutters, Machine
Beardshaw (J.) & Son, Ltd.
Jonas & Colver, Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
Osborn (Samuel) & Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Turton Bros. & Matthews, Ltd.
Wright, Bindley & Gell, Ltd.

Knives, Drawing (Carpenters')
Kayser, Ellison & Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Sanderson Bros. & Newbould, Ltd.

Knives, Farriers'
Kayser, Ellison & Co., Ltd.

Knives & Forks, Table
Collyer (John) & Co., Ltd.
Greener (W. W.), Ltd.
Kayser, Ellison & Co., Ltd.
Walker & Hall, Ltd.

Knives, Glaziers', Painters' & Plumbers'
Kayser, Ellison & Co., Ltd.

Knives, Hay & Chaff
Jonas & Colver, Ltd.
Osborn (Samuel) & Co., Ltd.
Sanderson Bros. & Newbould, Ltd.

Knives, Pocket, Pen & Pruning
Greener (W. W.), Ltd.
Walker & Hall, Ltd.

Knives, Rubber Tapping
Kayser, Ellison & Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Wright, Bindley & Gell, Ltd.
Yates (John) & Co., Ltd.

Knives, Various
Greener (W. W.), Ltd.
Osborn (Samuel) & Co., Ltd.
Wright, Bindley & Gell, Ltd.

Knurling Tools
Jones (A. A.) & Shipman, Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
Selson Engineering Co., Ltd.

L

Labels, Metal *(See "Checks and Labels.")*

Labels, Paper, &c.
Chorley & Pickersgill, Ltd.
Cooke (Alf.), Ltd.
Dickinson (John) & Co., Ltd.
Heywood (John), Ltd.
Jenkinson (Henry), Ltd.
Millington & Sons, Ltd.
Sinclair (William) & Sons (Stationers), Ltd.
Spicer (James) & Sons, Ltd.
Waterlow & Sons Ltd
Witherby & Co.

Laboratory Apparatus
Evans, Sons, Lescher & Webb, Ltd.
Heywood (John), Ltd.
Johnson, Matthey & Co., Ltd.
Sturtevant Engineering Co., Ltd.

Lace & Lace Goods
Boden & Co., Ltd.
Fletcher (William) & Sons (Derby), Ltd.

Laces, Boot, Shoe & Corset
Brough, Nicholson & Hall, Ltd.
Explosives Trades, Ltd.
Faire Bros. & Co., Ltd.
Wardle & Davenport, Ltd.

Lacquers
Berger (Lewis) & Sons, Ltd.
Canning (W.) & Co.
Clark (Robert Ingham) & Co., Ltd.
Explosives Trades, Ltd.
Jenson, Nicholson, Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Lactates
British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Ladders & Steps
Piggott Bros. & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Remer (John) & Co., Ltd.

Ladles, Casting & Foundry
(See "Foundry Equipment.")

Ladles, Plumbers'
Sankey (Joseph) & Sons, Ltd.

Lamp Burners
Bulpitt & Sons, Ltd.
Collins (Christopher), Ltd.

Lamp Chimneys & Globes
(See "Glassware, Illuminating.")

Lamp Furniture & Fittings
Bulpitt & Sons, Ltd.
Smith (John), Ltd.

Lamp Posts & Standards
Carron Company.
Clay Cross Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Morton (Francis) & Co., Ltd.

Lamps, Acetylene
Acetylene Corporation of Great Britain, Ltd.
Braime (T. F.) & Co., Ltd.
Collins (Christopher), Ltd.
Miller (H.) & Co., Ltd.
Smith (S.) & Sons (Motor Accessories), Ltd.

For any articles not listed, write to the appropriate Trade Association (pp. 39-78) or

Lamps, Blow & Brazing

British Oxygen Co., Ltd.
Bulpitt & Sons, Ltd.
Collins (Christopher), Ltd.
Explosives Trades, Ltd.

Lamps, Carriage

Brockhouse (J.) & Co., Ltd.
Bulpitt & Sons, Ltd.
Collins (Christopher), Ltd.

Lamps, Cycle

Brockhouse (J.) & Co., Ltd.
Collins (Christopher), Ltd.
Lucas (Joseph), Ltd.
Miller (H.) & Co., Ltd.

Lamps, Electric (Arc, Flash, &c.)

(See "Electric, etc.")

Lamps, Electric, Incandescent (Carbon)

Blackwell (Robert W.) & Co., Ltd.
Duram, Ltd.
Edison Swan Electric Co., Ltd.
General Electric Co., Ltd.
Metropolitan-Vickers Electrical Co., Ltd.

Lamps, Electric, Incandescent (Gas Filled)

Edison Swan Electric Co., Ltd.
English Electric Co., Ltd.
General Electric Co., Ltd.
Metropolitan-Vickers Electrical Co., Ltd.

Lamps, Electric, Incandescent (Metallic Filament)

Blackwell (Robert W.) & Co., Ltd.
Duram, Ltd.
Edison Swan Electric Co., Ltd.
English Electric Co., Ltd.
General Electric Co., Ltd.
Metropolitan-Vickers Electrical Co., Ltd.

Lamps, Gas

Bulpitt & Sons, Ltd.
Explosives Trades, Ltd.
Glover & Main, Ltd.
Welsbach Light Co., Ltd.

Lamps, Hand & Cart

Brockhouse (J.) & Co., Ltd.
Bulpitt & Sons, Ltd.
Collins (Christopher), Ltd.

Lamps, Household, Oil

Bulpitt & Sons, Ltd.
Explosives Trades, Ltd.

Lamps, Lighthouse

Acetylene Corporation of Great Britain, Ltd.
Chance Bros. & Co., Ltd.
Collins (Christopher), Ltd.

Lamps, Locomotive & Street Car

(See "Headlights, etc.")

Lamps, Marine

Braime (T. F.) & Co., Ltd.
Bulpitt & Sons, Ltd.
Collins (Christopher), Ltd.
Laing (Sir James) & Sons, Ltd.
Stone (J.) & Co., Ltd.

Lamps, Miners' Safety

Acetylene Corporation of Great Britain, Ltd.
Bulpitt & Sons, Ltd.
Collins (Christopher), Ltd.
Edison Swan Electric Co., Ltd.
General Electric Co., Ltd.

Lamps, Motor Car

Blackwell (Robert W.) & Co., Ltd.
Brockhouse (J.) & Co., Ltd.
Bulpitt & Sons, Ltd.
Collins (Christopher), Ltd.
Explosives Trades, Ltd.
Lucas (Joseph), Ltd.
Miller (H.) & Co., Ltd.
Smith (S.) & Sons (Motor Accessories), Ltd.
Suckling, Ltd.

Lamps, Street

Bulpitt & Sons, Ltd.
Crompton & Co., Ltd.
Glover & Main, Ltd.
Sheepbridge Coal & Iron Co., Ltd.

Lanoline

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Lanterns, Contractors', Stable & Hurricane

Bulpitt & Sons, Ltd.
Glover & Main, Ltd.

Lard Refining Plant

Manlove, Alliott & Co., Ltd.

Lasts, Boot & Shoe

Carron Company.

Latches, Door

Tann (John), Ltd.

Lathe Carriers *(See "Carriers.")*

Lathes, Metal Working

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Associated British Machine Tool Makers, Ltd.
Beyer, Peacock & Co., Ltd.
Butler Machine Tool Co., Ltd.
Churchill (Charles) & Co., Ltd.
Craven Bros. (Manchester), Ltd.
Drummond Bros., Ltd.
Haighs (Oldham), Ltd.
Holroyd (John) & Co., Ltd.
Hooker (Peter), Ltd.
Selson Engineering Co., Ltd.
Vickers, Ltd.

Lathes, Turret & Capstan

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Associated British Machine Tool Makers, Ltd.
Craven Bros. (Manchester), Ltd.
Haighs (Oldham), Ltd.
Holroyd (John) & Co., Ltd.
Ward (H. W.) & Co., Ltd.

Lathes, Wood Turning

Associated British Machine Tool Makers, Ltd
Aublet, Harry & Co., Ltd.
Beyer, Peacock & Co., Ltd.
Carron Company.
Haighs (Oldham), Ltd.

Launches (*See "Shallow Draught Vessels."*)

Laundry Machinery

Ashwell & Nesbit, Ltd.
Aublet, Harry & Co., Ltd.
Brightside Foundry & Engineering Co., Ltd.
Manlove, Alliott & Co., Ltd.
Westwood (Joseph) & Co., Ltd.

Lavatories & Fittings
(*See "Sanitary Fittings."*)

Lawn Mowers

Ransomes, Sims & Jefferies, Ltd.

Lawn Sprinklers (*See "Sprinklers, Lawn."*)

Lead Acetate

British Drug Houses, Ltd.
Cookson & Co., Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Leaded Lights

British Glass Industries, Ltd.
Pilkington Bros., Ltd.

Lead Foil (*See "Foil."*)

Lead Machinery

Greenwood & Batley, Ltd.
Hardy Patent Pick Co., Ltd.
Monometer Manufacturing Co. (1918), Ltd.

Lead Products (Chemical)

British Drug Houses, Ltd.
Cookson & Co., Ltd.
May & Baker, Ltd.

Lead Seals

British Insulated & Helsby Cables, Ltd.
General Electric Co., Ltd.
Sale (H. B.), Ltd.

Lead, Sheet & Pig

Burma Corporation, Ltd.
Capper, Pass & Sons, Ltd.
Cookson & Co., Ltd.
Foster, Blackett & Wilson, Ltd.
Vivian & Sons, Ltd.

Lead, White & Red

Berger (Lewis) & Sons, Ltd.
Cookson & Co., Ltd.
May & Baker, Ltd.
Rose (Sir W. A.) & Co., Ltd.

Lead Work, Decorative

Singer (J. W.) & Sons, Ltd.

Leather for Belting

Barrow (Samuel) & Brother, Ltd.
Hepburn, Gale & Ross, Ltd.
Walker (William) & Sons, Ltd.

Leather, Boot (Sole)

Barrow (Samuel) & Brother, Ltd.
Hepburn, Gale & Ross, Ltd.
Walker (William) & Sons, Ltd.

Leather, Boot (Upper)

Barrow (Samuel) & Brother, Ltd.
British Chrome Tanning Co. (1909), Ltd.
Cook (Fredk.), Ltd.
Hepburn, Gale & Ross, Ltd.
Miers (W. & H.), Ltd.

Leather, Calfskin

Barrow (Samuel) & Brother, Ltd.
Cook (Fredk.), Ltd.
Hepburn, Gale & Ross, Ltd.
Miers (W. & H.), Ltd.

Leather, Furniture & Carriage

Barrow (Samuel) & Brother, Ltd.
Hepburn, Gale & Ross, Ltd.

Leather, Glazed Kid & Morocco

Barrow (Samuel) & Brother, Ltd.
British Chrome Tanning Co. (1909), Ltd.
Hepburn, Gale & Ross, Ltd.

Leather Goods, Fancy

Brooks (J. B.) & Co., Ltd.
Dean & Co. (Stockport), Ltd.
Dickinson (John) & Co., Ltd
Dunhill (Alfred).
Finnigans, Ltd.
Norton & Gregory, Ltd.

Leather, Grain, Buffed & Split

Barrow (Samuel) & Brother, Ltd.
Hepburn, Gale & Ross, Ltd.

Leather, Harness

Barrow (Samuel) & Brother, Ltd.
Hepburn, Gale & Ross, Ltd.
Walker (William) & Sons, Ltd.

Leather, Imitation

Explosives Trades, Ltd.

Leather, Patent & Enamelled

Barrow (Samuel) & Brother, Ltd.
British Chrome Tanning Co. (1909), Ltd.
Hepburn, Gale & Ross, Ltd.

Leathers, Cup

Armstrongs & Main, Ltd.
Bell's United Asbestos Co., Ltd
Dean & Co. (Stockport), Ltd.
Hepburn, Gale & Ross, Ltd.
Walker (William) & Sons, Ltd.

Leathers, Mechanical

Barrow (Samuel) & Brother, Ltd.
Canning (W.) & Co.
Hepburn, Gale & Ross, Ltd.

Leather, Miscellaneous

Barrow (Samuel) & Brother, Ltd.
Cook (Fredk.), Ltd.
Dean & Co. (Stockport), Ltd.
Glover & Main, Ltd.
Hepburn, Gale & Ross, Ltd.
Miers (W. & H.), Ltd.

Lecithin

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Leggings & Gaiters

Cook (Fredk.), Ltd.
Greengate & Irwell Rubber Co., Ltd.
Hepburn, Gale & Ross, Ltd.
Slazengers, Ltd.

Lemonade Powders & Crystals

Crosse & Blackwell (Mfg. Co.), Ltd.
Keiller (James) & Son, Ltd.
May & Baker, Ltd.
Simpson (William) (Manchester), Ltd
Watford Manufacturing Co., Ltd.

Lemon Squeezers

Brinjes & Goodwin, Ltd.

Lenses, Photographic, &c.

Cooke (T.) & Sons, Ltd.

Leptandrin

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Letter-boxes

(See "Wire Goods" and "Japanned Ware.")

Letter Clips

Mitchell (William) (Pens), Ltd.
Norton & Gregory, Ltd.
Setten & Durward.
Smith (John), Ltd.
Terry (Herbert) & Sons, Ltd.
Waterlow & Sons Ltd.

Letter Copying Machines

Mountford (Fredk.) (Birmingham), Ltd.
Roneo, Ltd.
Setten & Durward.
Waterlow & Sons Ltd.

Letters and Figures, Metal

Carron Company.
Harrison & Co.
Sale (H. B.), Ltd.
Smith (John), Ltd.

Levels *(See "Instruments, Surveying.")*

Levels, Spirit

Barr & Stroud, Ltd.
Cooke (T.) & Sons, Ltd.
Halden (J.) & Co., Ltd.
Hooker (Peter), Ltd.

Lifeboats

Clarke, Chapman & Co., Ltd.
Fairfield Shipbuilding & Engineering Co., Ltd.
Hill (J. & P.).
Laing (Sir James) & Sons, Ltd.
Mechans, Ltd.
Seamless Steel Boat Co., Ltd.
Short Bros. (Rochester & Bedford), Ltd.
Thornycroft (John I.) & Co., Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.

Lifts & Elevators, Electrical

General Electric Co., Ltd.
Holt & Willetts.
Simon (Henry), Ltd.
Wild (M. B.) & Co., Ltd.

Lifts & Elevators, Hydraulic

Fielding & Platt, Ltd.
Glenfield & Kennedy, Ltd.
Hollings & Guest, Ltd.
Holt & Willetts.

Lighters *(See "Barges and Lighters.")*

Lighthouse Equipment

Chance Bros. & Co., Ltd.

Lighting Systems, Electric

(See "Electric, etc.")

Lighting System & Plant, Acetylene

(See "Acetylene, etc.")

Lighting Systems & Plant, Petrol

Acetylene Corporation of Great Britain, Ltd.
Allen (W. H.), Sons & Co., Ltd.
Kent (George), Ltd.
Lister (R. A.) & Co., Ltd.
Matthews & Yates, Ltd.
Thornycroft (John I.) & Co., Ltd.

Lighting Systems for Railway Carriages

Acetylene Corporation of Great Britain, Ltd.
Greenwood & Batley, Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Smith (S.) & Sons (Motor Accessories), Ltd.
Stone (J.) & Co., Ltd.
Vickers, Ltd.

Lightning Rods (Conductors)

British Insulated & Helsby Cables, Ltd.
General Electric Co., Ltd.
Sterling Telephone & Electric Co., Ltd.
Stone (J.) & Co., Ltd.

Limbs, Artificial

Evans, Sons, Lescher & Webb, Ltd.

Lime, Carbonate of

British Portland Cement Manufacturers, Ltd.
Burt, Boulton & Haywood, Ltd.
Clay Cross Co., Ltd.
May & Baker, Ltd.
Ship Canal Portland Cement Manufacturers, Ltd.

Lime, Chloride of

Castner-Kellner Alkali Co., Ltd.
Electro-Bleach & By-Products, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Lime Juice & Lemon Squash

Bush (W. J.) & Co., Ltd.
Crosse & Blackwell (Mfg. Co.), Ltd.
Rowntree & Co., Ltd.
Simpson (William) (Manchester), Ltd.

Limelight Apparatus

British Oxygen Co., Ltd.

Lime Stone

Baird (Wm.) & Co., Ltd.
Bell Bros., Ltd.
Blackwell (George G.), Sons & Co., Ltd.
Clay Cross Co., Ltd.
Consett Iron Co., Ltd.

Lime Stone—*continued.*

Ebbw Vale Steel, Iron & Coal Co., Ltd.
Newton, Chambers & Co., Ltd.
Pease & Partners, Ltd.
Sheepbridge Coal & Iron Co., Ltd.
Ship Canal Portland Cement Manufacturers, Ltd.

Limewashing Machines

United Brassfounders & Engineers, Ltd.

Linch-pins

Bayliss, Jones & Bayliss, Ltd.
Brockhouse (J.) & Co., Ltd.
Guest, Keen & Nettlefolds, Ltd.
Mountford (Fredk.) (Birmingham), Ltd.

Line Pins (*See "Hand Tools, Sundry."*)

Linen Fabrics

Boath (John), Junr. & Co., Ltd.
Brown (John S.) & Sons, Ltd.
County Down Weaving Co., Ltd.
Duke (D. & R.).
Ewart (William) & Son, Ltd.
McCrum, Watson & Mercer, Ltd.
Mitchell (Andrew) & Co., Ltd.

Linen Goods (*See "Handkerchiefs," "Shirts," "Underwear," etc.*)

Linen, Table

Brown (John S.) & Sons, Ltd.
County Down Weaving Co., Ltd.
Ewart (William) & Son, Ltd.
McCrum, Watson & Mercer, Ltd.

Linen Thread, Sewing

Explosives Trades, Ltd.
Linen Thread Co., Ltd.

Linen Yarn (*See "Yarn, Linen."*)

Lines, Fishing

(*See "Fishing Lines and Nets."*)

Liniments

Boots Pure Drug Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Lining (*See "Cotton, Silk, etc."*)

Linoleum Machinery

Brinjes & Goodwin, Ltd.
Fielding & Platt, Ltd.

Linseed (*See "Oil, Linseed," "Meal, etc."*)

Liqueurs

Chaplin (W. H.) & Co., Ltd.

Liquid Controllers & Starters

Electric Construction Co., Ltd.
English Electric Co., Ltd.
Steel, Peech & Tozer, Ltd.

Liquid Fuel Plant

(*See "Oil Fuel Apparatus."*)

Liquorice

Evans, Sons, Lescher & Webb, Ltd.

Litharge (*See "Lead, Red and White."*)

Lithium Salts

Boots Pure Drug Co., Ltd.
British Drug Houses, Ltd.
May & Baker, Ltd.

Lithographic Machinery & Apparatus

Linotype & Machinery, Ltd.
Mann (George) & Co., Ltd.

Lithopone

Orr's Zinc White, Ltd.
Rose (Sir W. A.) & Co., Ltd.

Loading & Unloading Plant

Armstrongs & Main, Ltd.
Clarke, Chapman & Co., Ltd.
General Electric Co., Ltd.
Head, Wrightson & Co., Ltd.
Holt & Willetts.
Hudson (Robert), Ltd.
Johnson (C. H.) & Sons, Ltd.
Marsden (H. R.), Ltd.
Mechans, Ltd.
Ransomes & Rapier, Ltd.
Simon (Henry), Ltd.
Stothert & Pitt, Ltd.
Westwood (Joseph) & Co., Ltd.
Wood (Hugh) & Co., Ltd.
Wright (John & Edwin), Ltd.

Lock Gates (*See "Gates, Lock, etc."*)

Lock Nuts (*See "Bolts and Nuts."*)

Lockers (*See "Boxes."*)

Locks, Cabinet, Trunk & Box

Cotterill (Edwin) & Co., Ltd.
Erebus Manufacturing Co., Ltd.
Smith (John), Ltd.
Tann (John), Ltd.

Locks, Door

Cotterill (Edwin) & Co., Ltd.
Erebus Manufacturing Co., Ltd.
Tann (John), Ltd.

Locks, Pad (*See "Padlocks."*)

Locomotives

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Beardmore (William) & Co., Ltd.
Beyer, Peacock & Co., Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Hudson (Robert), Ltd.
Kerr, Stuart & Co., Ltd.
North British Locomotive Co., Ltd.
Ruston & Hornsby, Ltd.
Stephenson (Robert) & Co., Ltd.
Vulcan Foundry, Ltd.

Locomotives, Electric

Beardmore (William) & Co., Ltd.
English Electric Co., Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Hill (J. & P.).
Metropolitan-Vickers Electrical Co., Ltd.
North British Locomotive Co., Ltd.
Vickers, Ltd.
Wood (Hugh) & Co., Ltd.

Locomotive Builders' Plant

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Beyer, Peacock & Co., Ltd.
Craven Bros. (Manchester), Ltd.
Fielding & Platt, Ltd.
Holroyd (John) & Co., Ltd.
Vulcan Foundry, Ltd.

Locomotive Parts

Allen (Edgar) & Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Beardmore (William) & Co., Ltd.
Beyer, Peacock & Co., Ltd.
Bibby (John), Sons & Co. (Garston), Ltd.
Bolton (Thomas) & Sons, Ltd.
Brown (John) & Co., Ltd.
Chesterfield Tube Co., Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Gresham & Craven, Ltd.
Hadfields, Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Jennings (George), Ltd.
Kerr, Stuart & Co., Ltd.
North British Locomotive Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Spencer (John) & Sons, Ltd.
Stephenson (Robert) & Co., Ltd.
Stewarts & Lloyds, Ltd.
Stone (J.) & Co., Ltd.
Vickers, Ltd.
Vulcan Foundry, Ltd.

Looking Glasses *(See "Mirrors.")*

Looms *(See "Textile Machinery.")*

Loose Leaf System *(See "Filing Devices.")*

Lorries, Electric

Agricultural & General Engineers, Ltd.
Clayton & Shuttleworth, Ltd.
Greenwood & Batley, Ltd.
Hill (J. & P.).
Ransomes, Sims & Jefferies, Ltd.

Lorries, Petrol & Oil

Alldays & Onions, Ltd.
Associated Equipment Co., Ltd.
Austin Motor Co., Ltd.
Burford (H. G.) & Co., Ltd.
Commercial Cars, Ltd.
Crabtree (R. W.) & Sons.
Daimler Co., Ltd.
Dennis Bros., Ltd.
Du Cros (W. & G.), Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Garratt (Richard) & Sons, Ltd.
Guy Motor, Ltd.
Hall (J. & E.), Ltd.
Hooker (Peter), Ltd.
Maudslay Motor Co., Ltd.
Napier (D.) & Son, Ltd.
Star Engineering Co., Ltd.
Straker, Squire, Ltd.
Thornycroft (John I.) & Co., Ltd.
Tilling-Stevens Motors, Ltd.
White (E. T.) & Co.

Lorries, Steam

Agricultural & General Engineers, Ltd.
Clayton & Shuttleworth, Ltd.
Clayton, Son & Co., Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Garrett (Richard) & Sons, Ltd.
National Omnibus & Transport Co., Ltd.
Robey & Co., Ltd.
Ruston & Hornsby, Ltd.
Sentinel Waggon Works (1920), Ltd.

Lubricants

Anglo-Persian Oil Co., Ltd.
Asiatic Petroleum Co., Ltd.
Bell's United Asbestos Co., Ltd.
Butler (William) & Co. (Bristol), Ltd.
Duckham (Alexander) & Co., Ltd.
Gaunt & Hickman.
Hess (Adolph) & Bros., Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
Rose (Sir W. A.) & Co., Ltd.
Snowdon, Sons & Co., Ltd.
United Turkey Red Co., Ltd.
Wakefield (C. C.) & Co., Ltd.

Lubricators

Abingdon Works, Ltd.
Benton & Stone, Ltd.
Blakeborough (J.) & Sons, Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
Stone (J.) & Co., Ltd.
United Brassfounders & Engineers, Ltd.
United Turkey Red Co., Ltd.
Wakefield (C. C.) & Co., Ltd.

Lubricators, Glass

(See "Glassware, Machinery.")

Lycopodium

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

M

Macaroni & Vermicelli

Crosse & Blackwell (Mfg. Co.), Ltd.

Machine Screws (Brass & Iron)

(See "Screws.")

Machine Tools *(See under respective headings.)*

Magnesia

Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Magnesium, Carbonate

British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Magnesium, Chloride

May & Baker, Ltd.
United Alkali Co., Ltd.

Magnesium, Ribbon

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Magnesium, Sulphate

Boake (A.), Roberts & Co., Ltd.
Borax Consolidated, Ltd.
British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Magnetic Ore Separators
(*See "Separators, Ore."*)

Magnets (*See "Electric Accessories."*)

Magnets, Lifting
General Electric Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Steel, Peech & Tozer, Ltd.

Magnetos
Duram, Ltd.
General Electric Co., Ltd.
Lucas (Joseph), Ltd.
Smith (S.) & Sons (Motor Accessories), Ltd.
Vickers, Ltd.

Mail Carts (*See "Baby Carriages, etc."*)

Mains, High-pressure Steam
Clay Cross Co., Ltd.
Cochrane & Co. (Woodside), Ltd.
Sheepbridge Coal & Iron Co., Ltd.
Spencer (John), Ltd.

Maize Shellers
Agricultural & General Engineers, Ltd.
Marshall, Sons & Co., Ltd.
Ransomes, Sims & Jefferies, Ltd.
Ruston & Hornsby, Ltd.
Simon (Henry), Ltd.

Mallets & Mauls
Hardy Patent Pick Co., Ltd.
Lebus (Harris).
Smith (Thomas) & Sons, of Saltley, Ltd.

Malt
Morse (E. G.).

Malt Extract
Boake (A.), Roberts & Co., Ltd.
Boots Pure Drug Co., Ltd.
British Drug Houses, Ltd.
Calder (James) & Co., Ltd.
Distillers' Co., Ltd. (The).
Evans, Sons, Lescher & Webb, Ltd.

Maltsters, Machinery
Boby (Robert), Ltd.
Mechans, Ltd.
Simon (Henry), Ltd.
Vickers, Ltd.

Mandrels
Alldays & Onions, Ltd.
British Aluminium Co., Ltd.
Jones (A. A.), Shipman, Ltd.
Sanderson Bros. & Newbould, Ltd.
Vickers, Ltd.

Manganese
Bolckow, Vaughan & Co., Ltd.
Fergusson (N. G.) & Co., Ltd.
May & Baker, Ltd.
Nagersheth (M.) Son.

Manganese Bronze
Blackwell (George G.), Sons & Co., Ltd.
Blakeborough (J.) & Sons, Ltd.
Bolton (Thomas) & Sons, Ltd.
Booth (James) & Co. (1915), Ltd.
Clifford (Charles) & Son, Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
McKechnie Bros., Ltd.
Stone (J.) & Co., Ltd.
Vickers, Ltd.

Manganese Products (Chemical)
British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Manhole Covers
Bayliss, Jones & Bayliss, Ltd.
Blakeborough (J.) & Sons, Ltd.
Brightside Foundry & Engineering Co., Ltd.
Carron Company.
Clay Cross Co., Ltd.
Glenfield & Kennedy, Ltd.
Harvey (G. A.) & Co. (London), Ltd.
Head, Wrightson & Co., Ltd.
Jennings (George), Ltd.
Mechans, Ltd.
Monometer Manufacturing Co. (1918), Ltd.
Morton (Francis) & Co., Ltd.
Newton, Chambers & Co., Ltd.
Sheepbridge Coal & Iron Co., Ltd.
Stone (J.) & Co., Ltd.

Manicure Sets
Collyer (John) & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Finnigans, Ltd.
Maw (S.), Son & Sons, Ltd.

Mantles, Incandescent Gas
(*See "Gas, Incandescent, Mantles."*)

Manures, Chemical (*See "Fertilizers."*)

Maps & Charts
Heywood (John), Ltd.
Philip (George) & Son, Ltd.
Waterlow & Sons Ltd

Margarine
British Oil & Cake Mills, Ltd.
Calder (James) & Co., Ltd.
English Margarine Works (1919), Ltd.
Silcock (R.) & Sons, Ltd.

Margarine Plant
Brinjes & Goodwin, Ltd.
British Aluminium Co., Ltd.
Whessoe Foundry Co., Ltd.

Marine Engines (*See "Engines, Marine."*)

Marine Motors (*See "Motors, Marine."*)

Marmalade
Batger & Co.
Crosse & Blackwell (Mfg. Co.), Ltd.
Keiller (James) & Son, Ltd.
Maconochie Bros., Ltd.
Simpson (William) (Manchester), Ltd.

Maslin Pans (*See "Hollow-ware."*)

Masts for Wireless Telegraphy
Accles & Pollock, Ltd.
Armstrongs & Main, Ltd.
Braithwaite & Co.
Bullers, Ltd.
Cleveland Bridge & Engineering Co., Ltd.

Masts for Wireless Telegraphy—*continued.*

Motherwell Bridge Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Spencer (John), Ltd.
Stewarts & Lloyds, Ltd.
Tees Side Bridge & Engineering Works, Ltd.

Matches

Sanderson Bros. & Newbould, Ltd.

Match-making Machinery

Vickers, Ltd.

Matchets

Hardy Patent Pick Co., Ltd.

Mats, Rubber (*See "Rubber Matting."*)

Mats, Steam

Bell's United Asbestos Co., Ltd.

Matting

British Aluminium Co., Ltd.

Mattocks (*See "Picks, etc."*)

Mattresses

Harrod's, Ltd.
White, Allom & Co.

Mattresses, Wire

Fitter Bros.
Smith & Cartwright Bedstead Co., Ltd.

Mauls (*See "Mallets and Mauls."*)

Meal, Oil-cake, &c. (Cottonseed, Linseed, &c.)

Bibby (J.) & Sons, Ltd.
British Oil & Cake Mills, Ltd.
Crosfield (Joseph) & Sons, Ltd.
Loders & Nucoline, Ltd.
Nagersheth (M.) Sons.
Silcock (R.) & Sons, Ltd.

Meat Choppers (*See "Choppers and Cleavers."*)

Meat Cloths

Morgan, Crossley & Co., Ltd.

Meat Cutting Machines

Haighs (Oldham), Ltd.
Mountford (Fredk.) (Birmingham), Ltd.

Meat Extract

Bovril, Ltd.
Crosse & Blackwell (Mfg. Co.), Ltd.

Meats, Potted & Tinned

Crosse & Blackwell (Mfg. Co.), Ltd.
Maconochie Bros., Ltd.

Mechanical Draught Apparatus

Brightside Foundry & Engineering Co., Ltd.
Davidson & Co., Ltd.
Matthews & Yates, Ltd.
Musgrave & Co., Ltd.
Musgrave (John) & Sons, Ltd.
Sturtevant Engineering Co., Ltd.

Medals (*See "Badges, etc."*)

Medicinal Products (Compressed)

Boots Pure Drug Co., Ltd.
British Drug Houses, Ltd.
British Dyestuffs Corporation, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Medicinal Spirits

Boots Pure Drug Co., Ltd.
British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Megaphones & Speaking Trumpets

Bulpitt & Sons, Ltd.

Memorials, Monumental & Mural in Metal

Singer (J. W.) & Sons, Ltd.

Menthol Valerianate

British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Mercantile Vessels

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Beardmore (William) & Co., Ltd.
Brown (John) & Co., Ltd.
Laing (Sir James) & Sons, Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Short Bros. (Rochester & Bedford), Ltd.
Thompson (Joseph L.) & Sons, Ltd.
Thornycroft (John I.) & Co., Ltd.
White (J. Samuel) & Co., Ltd.
Yarrow & Co., Ltd.

Mercurials

British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Metal Band Sewing Machines

Associated British Machine Tool Makers, Ltd.
Greenwood & Batley, Ltd.

Metallurgical Plant

Head, Wrightson & Co., Ltd.
Mechans, Ltd.
Newton, Chambers & Co., Ltd.
Piggott (Thomas) & Co., Ltd.

Metal Mixers

(*See "Iron and Steel Works Plant."*)

Metal Sawing Machines

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Associated British Machine Tool Makers, Ltd.
Berry (Henry) & Co., Ltd.
Brightside Foundry & Engineering Co., Ltd.
Craven Bros. (Manchester), Ltd.
Greenwood & Batley, Ltd.
Holroyd (John) & Co., Ltd.
Selson Engineering Co., Ltd.

Metal Shearing Machines

Accles & Pollock, Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Associated British Machine Tool Makers, Ltd.
Berry (Henry) & Co., Ltd.
Brightside Foundry & Engineering Co., Ltd.
Craven Bros. (Manchester), Ltd.
Fielding & Platt, Ltd.
Greenwood & Batley, Ltd.
Hollings & Guest, Ltd.

Metals, Bearing (*See "Anti-Friction Metals."*)

Meters, Electric

British Insulated & Helsby Cables, Ltd.
Edison Swan Electric Co., Ltd.
Electrical Apparatus Co., Ltd.
Ferranti, Ltd.
General Electric Co., Ltd.
Lucas (Joseph), Ltd.
Metropolitan-Vickers Electrical Co., Ltd.

Meters, Gas, Water & Various

Glenfield & Kennedy, Ltd.
Glover & Main, Ltd.
Kent (George), Ltd.
Richmond Gas Stove & Meter Co., Ltd.
Vickers, Ltd.

Meter Testing Apparatus

Glenfield & Kennedy, Ltd.
Glover & Main, Ltd.

Methyl Acetanilide

Boake (A.), Roberts & Co., Ltd.
British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Methyl Ditannin

British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Methyl Salicylate

Boake (A.), Roberts & Co., Ltd.
British Drug Houses, Ltd.
Bush (W. J.) & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Methyl Sulphonal

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Metol

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Micrometers

Aircraft Manufacturing Co., Ltd.
Hooker (Peter), Ltd.

Microscopes (*See "Instruments, Optical."*)

Milk Cans & Churns

Braime (T. F.) & Co., Ltd.
Ludlow Bros. (1913), Ltd.

Millinery

Fabricless Products, Ltd.

Milling Cutters

Allen (Edgar) & Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Associated British Machine Tool Makers, Ltd.
Beardshaw (J.) & Son, Ltd.
English Electric Co., Ltd.
Greenwood & Batley, Ltd.
Holroyd (John) & Co., Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
Osborn (Samuel) & Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Turton Bros. & Matthews, Ltd.
Vickers, Ltd.

Milling Machines

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Associated British Machine Tool Makers, Ltd.
Carron Company.
Churchill (Charles) & Co., Ltd.
Cooke (T.) & Sons, Ltd.
Craven Bros. (Manchester), Ltd.
Greenwood & Batley, Ltd.
Haighs (Oldham), Ltd.
Holroyd (John) & Co., Ltd.

Mills, Flour, &c.
(*See "Flour Mill Machinery."*)

Mincemeat

Batger & Co.
Crosse & Blackwell (Mfg. Co.), Ltd.
Keiller (James) & Son, Ltd.
Maconochie Bros., Ltd.
Simpson (William) (Manchester), Ltd.

Mincers (*See "Meat-Cutting Machines."*)

Mineral Waters (*See "Aerated Waters."*)

Mines, Electrical Equipment for

Callender's Cable & Construction Co., Ltd.
Crompton & Co., Ltd.
Electric Construction Co., Ltd.
Ellison (George).
English Electric Co., Ltd.
General Electric Co., Ltd.
Henley's (W. T.) Telegraph Works Co., Ltd.
Johnson & Phillips, Ltd.
Mather & Platt, Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Sandycroft, Ltd.
Sterling Telephone & Electric Co., Ltd.
Tucker (J. H.) & Co., Ltd.
Wild (M. B.) & Co., Ltd.

Mining Haulage, Electric

Armstrong & Main, Ltd.
Carron Company.
Clarke, Chapman & Co., Ltd.
Crompton & Co., Ltd.
Electric Construction Co., Ltd.
English Electric Co., Ltd.
General Electric Co., Ltd.
Holman Bros., Ltd.
Holt & Willetts
Mather & Platt, Ltd.
Metropolitan-Vickers Electrical Co., Ltd.

Mining Haulage, Electric—*continued.*

Sandycroft, Ltd.
Wigglesworth (Frank) & Co., Ltd.
Wild (M. B.) & Co., Ltd.
Wood (Hugh) & Co., Ltd.
Wright (John & Edwin), Ltd.
Yates & Thom, Ltd.

Mining Machinery

Allen (Edgar) & Co., Ltd.
Climax Rock Drill & Engineering Works, Ltd.
Davidson & Co., Ltd.
English Electric Co., Ltd.
General Electric Co., Ltd.
Hadfields, Ltd.
Hardy Patent Pick Co., Ltd.
Holman Bros., Ltd.
Head, Wrightson & Co., Ltd.
Hudson (Robert), Ltd.
Johnson (C. H.) & Sons, Ltd.
Kerr, Stuart & Co., Ltd.
Marsden (H. R.), Ltd.
Mechans, Ltd.
Osborn (Samuel) & Co., Ltd.
Sandycroft, Ltd.
Sturtevant Engineering Co., Ltd.
Vickers, Ltd.
Whessoe Foundry Co., Ltd.
Wild (M. B.) & Co., Ltd.
Wood (Hugh) & Co., Ltd.
Wright (John & Edwin), Ltd.

Mining Tools (*See "Hand Tools."*)

Mirrors, Metal Framed & Wood

Cartland (James) & Son, Ltd.
Central Aircraft Co.
Hawkes (O. C.), Ltd.
Lebus (Harris).
White, Allom & Co.

Mirrors, Plane & Spherical

Chance Bros. & Co., Ltd.
Cooke (T.) & Sons, Ltd.
Jennings (George), Ltd.
Parsons (C A.) & Co., Ltd.
Pilkington Bros., Ltd.

Mixers, Concrete (*See "Concrete, etc."*)

Mohair Fabrics

Ambler (Jeremiah) & Sons, Ltd.
Benn (J.), Junr.
Emsley (J.) & Co., Ltd.
Foster (John) & Son, Ltd.
Fur Fabric Co., Ltd.
Pepper, Lee & Co., Ltd.
Salt (Sir Titus), Bart., Sons & Co., Ltd.

Molasses

Tate (Henry) & Sons, Ltd.
Walker (John) & Co.

Monuments, Bronze, &c.

Sale (H. B.), Ltd.

Mops, Floor-polishing

Paton, Calvert & Co., Ltd.
Stott (James), Ltd.

Mops, Swilling

Morgan, Crossley & Co., Ltd.
Stott (James), Ltd.

Morphia & Salts

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Mortars & Pestles

(*See "Pestles and Mortars."*)

Mortising Machines

Associated British Machine Tool Makers, Ltd.
Carron Company.
Haighs (Oldham), Ltd.
Projectile & Engineering Co., Ltd.

Mosquito Curtains

Boden & Co., Ltd.

Motor Boats

Aircraft Manufacturing Co., Ltd.
Clarke, Chapman & Co., Ltd.
Mechans, Ltd.
Orr, Watt & Co., Ltd.
Seamless Steel Boat Co., Ltd.
Short Bros. (Rochester & Bedford), Ltd.
Thornycroft (John I.) & Co., Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.
Yarrow & Co., Ltd.

Motor Bodies

Aircraft Manufacturing Co., Ltd.
Armstrong Siddeley Motors, Ltd.
Bristol Aeroplane Co., Ltd.
Bristol Wagon & Carriage Works Co., Ltd.
Brush Electrical Engineering Co., Ltd.
Central Aircraft Co.
Daimler Co., Ltd.
Du Cros (W. & G.), Ltd.
Glendower Aircraft Co., Ltd.
Grahame-White Co. Ltd.
Lanchester Motor Co., Ltd.
Remer (John) & Co., Ltd.
Roe (A. V.) & Co., Ltd.
Sankey (Joseph) & Sons, Ltd.
Short Bros. (Rochester & Bedford), Ltd.
Sizaire-Berwick, Ltd.
Star Engineering Co., Ltd.
Tilling-Stevens Motors, Ltd.

Motor Body Fittings (*See "Brassfoundry, Coach," and Ironmongery, Coach."*)

Motor Car Accessories

(*See also "Lamps," "Horns," "Tyres," etc.*)

Avon India Rubber Co., Ltd.
Benton & Stone, Ltd.
Braime (T. F.) & Co., Ltd.
Brooks (J. B.) & Co., Ltd.
Dover, Ltd.
Dunlop Rubber Co., Ltd.
Greenwood & Batley, Ltd.
Harris & Sheldon Ltd.
Harrison & Co.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Jenson & Nicholson, Ltd.
Leeds Forge Co., Ltd.
Lucas (Joseph), Ltd.
Marston (John), Ltd.
Miller (H.) & Co., Ltd.
Mountford (Fredk.) (Birmingham), Ltd.

Motor Car Accessories—*continued.*

Osborn (Samuel) & Co., Ltd.
Richards (J. H.) & Co., Ltd.
Robinhood Engineering Works, Ltd.
Roe (A. V.) & Co., Ltd.
Smith (S.) & Sons (Motor Accessories), Ltd.
Suckling, Ltd.
Terry (Herbert) & Sons, Ltd.
Vandervell (C. A.) & Co., Ltd.

Motor Cars

Alldays & Onions, Ltd.
Angus (Sir William), Sanderson & Co., Ltd.
Armstrong Siddeley Motors, Ltd.
Austin Motor Co., Ltd.
Beardmore (William) & Co., Ltd.
Bristol Aeroplane Co., Ltd.
Clement Talbot, Ltd.
Crabtree (R. W.) & Sons.
Crossley Motors, Ltd.
Cubitt's Engineering Co., Ltd.
Daimler Co., Ltd.
Du Cros (W. & G.), Ltd.
Explosives Trades, Ltd.
Glendower Aircraft Co., Ltd.
Grahame-White Co., Ltd.
Guy Motors, Ltd.
Hooker (Peter), Ltd.
Humber, Ltd.
Lagonda, Ltd.
Lanchester Motor Co., Ltd.
Maudslay Motor Co., Ltd.
Napier (D.) & Son, Ltd.
New Hudson, Ltd.
Roe (A. V.) & Co., Ltd.
Rolls-Royce, Ltd.
Rover Co., Ltd.
Ruston & Hornsby, Ltd.
Sheffield Simplex, Ltd.
Singer & Co., Ltd.
Sizaire-Berwick, Ltd.
Standard Motor Co., Ltd.
Star Engineering Co., Ltd.
Straker-Squire, Ltd.
Sunbeam Motor Car Co., Ltd.
Swift, of Coventry, Ltd.
Vauxhall Motors, Ltd.
Wolseley Motors, Ltd.

Motor Cars, Electric

(*See "Battery Vehicles."*)

Motor Castings, Aluminium

Aircraft Manufacturing Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd
Ashwell & Nesbit, Ltd.
Brockhouse (J.) & Co., Ltd.
Du Cros (W. & G.), Ltd.
English Electric Co., Ltd.
Joseph (N. C.).
Sale (H. B.), Ltd.
Stone (J.) & Co., Ltd.
United Brassfounders & Engineers, Ltd.
White (E. T.) & Co.

Motor Castings, Brass & Bronze

Aircraft Manufacturing Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Ashwell & Nesbit, Ltd.
Brightside Foundry & Engineering Co., Ltd.
Brockhouse (J.) & Co., Ltd.
Clifford (Charles) & Son, Ltd.
Delta Metal Co., Ltd.
Du Cros (W. & G.), Ltd.
Explosives Trades, Ltd.
Kent (George), Ltd.
Sale (H. B.), Ltd.
Singer (J. W.) & Sons, Ltd.
Stone (J.) & Co., Ltd.
United Brassfounders & Engineers, Ltd.
White (E. T.) & Co.

Motor Castings, Iron

Accles & Pollock, Ltd.
Ashwell & Nesbit, Ltd.
Bayliss, Jones & Bayliss, Ltd.
Brightside Foundry & Engineering Co., Ltd.
Brockhouse (J.) & Co., Ltd.
Bullers, Ltd.
Carron Company.
Du Cros (W. & G.), Ltd.
Morton (Francis) & Co., Ltd.
Sheepbridge Coal & Iron Co., Ltd.
Summerson (Thomas) & Co., Ltd.
White (E. T.) & Co.

Motor Converters (*See "Converters, Motor."*)

Motor Cycles

Abingdon Works, Ltd.
Aircraft Manufacturing Co., Ltd.
Alldays & Onions, Ltd.
B.S.A. Cycles, Ltd.
Components, Ltd.
Explosives Trades, Ltd.
Frodingham Iron & Steel Co., Ltd.
Humber, Ltd.
Humphries & Dawes, Ltd
Marston (John), Ltd.
Martinsyde, Ltd.
New Hudson, Ltd.
Raleigh Cycle Co., Ltd.
Rudge-Whitworth, Ltd.
Smith (P.) & Sons (Motor Accessories), Ltd.
Sopwith Aviation & Engineering Co., Ltd.
Sun Cycle & Fittings Co., Ltd.
Tyler Apparatus Co., Ltd.

Motor Cycle Parts

Accles & Pollock, Ltd.
Alldays & Onions, Ltd.
Braime (T. F.) & Co., Ltd.
Britannia Tube Co., Ltd.
Brooks (J. B.) & Co., Ltd.
Davis & Timmins, Ltd.
Derwent Foundry Co. (1920), Ltd.
Ferodo, Ltd.
Greener (W. W.), Ltd.
Holroyd (John) & Co., Ltd.
Humphries & Dawes, Ltd.
Martinsyde, Ltd.
Miller (H.) & Co., Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
New Hudson, Ltd.
Pugh (Charles H.), Ltd.
Raleigh Cycle Co., Ltd.
Sun Cycle & Fittings Co., Ltd.
Tayler (D. F.) & Co., Ltd.

Motor Lorries & Commercial Cars

(*See "Lorries, Petrol and Oil," and "Lorries, Steam."*)

Motor Omnibuses & Char-a-bancs

Associated Equipment Co., Ltd.
Bristol Wagon & Carriage Works Co., Ltd.
Burford (H. G.) & Co., Ltd.
Central Aircraft Co.
Commercial Cars, Ltd.
Daimler Co., Ltd.
Du Cros (W. & G.), Ltd.
Hall (J. & E.), Ltd.
Hurst, Nelson & Co., Ltd.
Maudslay Motor Co., Ltd.
National Omnibus & Transport Co., Ltd.
Star Engineering Co., Ltd.
Thornycroft (John I.) & Co., Ltd.

Motor Scooters

Campling (Gilbert), Ltd.

Motor Ships

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Fairfield Shipbuilding & Engineering Co., Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Seamless Steel Boat Co., Ltd.
Short Bros. (Rochester & Bedford), Ltd.
Thornycroft (John I.) & Co., Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.
Yarrow & Co., Ltd.

Motor Stampings

Albion Drop Forgings Co., Ltd.
Benton & Stone, Ltd.
Braime (T. F.) & Co., Ltd.
Bulpitt & Sons, Ltd.
Clayton & Shuttleworth, Ltd.
Cotterill (F. W.), Ltd.
Delta Metal Co., Ltd.
Electro-Mechanical Brake Co., Ltd.
Gilbertson (W.) & Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Jessop (William) & Sons, Ltd.
Kirkstall Forge, Ltd.
Leeds Forge Co., Ltd.
Ludlow Bros. (1913), Ltd.
Piggott (Thomas) & Co., Ltd.
Projectile & Engineering Co., Ltd.
Singer (J. W.) & Co., Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.
Stone (J.) & Co., Ltd.
Vickers, Ltd.
Wolseley Sheep Shearing Machine Co., Ltd.

Motor Starters & Panels, Electric

Crompton & Co., Ltd.
Edison Swan Electric Co., Ltd.
Electric Construction Co., Ltd.
Electro-Mechanical Brake Co., Ltd.
Ellison (George).
English Electric Co., Ltd.
General Electric Co., Ltd.
Lucas (Joseph), Ltd.
Matthews & Yates, Ltd.
Sandycroft, Ltd.
Smith (S.) & Sons (Motor Accessories), Ltd.

Motor Wagons (*See "Lorries, Petrol and Oil."*)

Motors, Agricultural

(*See "Agricultural Motors."*)

Motors, Electric, A.C.

Agricultural & General Engineers, Ltd.
Associated British Machine Tool Makers, Ltd.
Bolton (Thomas) & Sons, Ltd.
Brook (E.), Ltd.
Brush Electrical Engineering Co., Ltd.
Bulpitt & Sons, Ltd.
Crompton & Co., Ltd.
Edison Swan Electric Co., Ltd.
Electric Construction Co., Ltd.
English Electric Co., Ltd.
General Electric Co., Ltd.
Greenwood & Batley, Ltd.
Hill (J. & P.).
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Johnson, Phillips, Ltd.
Kent (George), Ltd.
Mather & Platt, Ltd.
Matthews & Yates, Ltd.
Metropolitan-Vicker's Electrical Co., Ltd.
Rees Roturbo Manufacturing Co., Ltd.
Sandycroft, Ltd.
Vickers, Ltd.

Motors, Electric, D.C.

Agricultural & General Engineers, Ltd.
Allen (W. H.), Son & Co., Ltd.
Associated British Machine Tool Makers, Ltd.
Brush Electrical Engineering Co., Ltd.
Bulpitt & Sons, Ltd.
Crompton & Co., Ltd.
Edison Swan Electric Co., Ltd.
Electric Construction Co., Ltd.
English Electric Co., Ltd.
General Electric Co., Ltd.
Greenwood & Batley, Ltd.
Hill (J. & P.).
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Johnson, Phillips, Ltd.
Kent (George), Ltd.
Mather & Platt, Ltd.
Matthews & Yates, Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Rees Roturbo Manufacturing Co., Ltd.
Vickers, Ltd.

Motors, Marine

Allen (W. H.), Sons & Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Beardmore (William) & Co., Ltd.
North Eastern Marine Engineering Co., Ltd.
Tylor (J.) & Sons, Ltd.
White (J. Samuel) & Co., Ltd.
Wolseley Motors, Ltd.
Yarrow & Co., Ltd.

Moulders' Tools

(*See "Hand Tools, Moulder's."*)

Moulding Machines

Alldays & Onions, Ltd.
Aublet, Harry & Co., Ltd.
Consolidated Signal Co., Ltd.
Ley's Malleable Castings Co., Ltd.
Vickers, Ltd.

Moulds, Ingot

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Bayliss, Jones & Bayliss, Ltd.
Brightside Foundry & Engineering Co., Ltd.
Carron Company.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Head, Wrightson & Co., Ltd.
Lysaght (John), Ltd.
Monometer Manufacturing Co. (1918), Ltd.
Newton, Chambers & Co., Ltd.
North Lonsdale Iron & Steel Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Sale (H. B.), Ltd.
Tees Side Bridge & Engineering Works, Ltd.

Mowers

Agricultural & General Engineers, Ltd.
Ruston & Hornsby, Ltd.

Mufflers *(See "Scarves, Mufflers, etc.")*

Muffles *(See "Furnaces, Annealing.")*

Musical Instruments

Gramophone Co., Ltd.

Music Stands & Racks

Birch (William), Ltd.
Heywood (John), Ltd.
Lebus (Harris).

Muslins *(See "Cotton.")*

Mustard

Crosse & Blackwell (Mfg. Co.), Ltd.
Evans, Sons, Lescher & Webb, Ltd.

Muzzles, Dog *(See "Wire Goods.")*

N

Nails, Brass Headed

Harrison & Co.
Smith (John), Ltd.
Stone (J.) & Co., Ltd.

Nails, Horse Shoe

Brockhouse (J.) & Co., Ltd.

Nails & Tacks, Brass & Copper, &c.

Brockhouse (J.) & Co., Ltd.
Explosives Trades, Ltd.
Stone (J.) & Co., Ltd.

Nails & Tacks, Wire

Braby (Frederick) & Co., Ltd.
Brockhouse (J.) & Co., Ltd.
Explosives Trades, Ltd.
Guest, Keen & Nettlefolds, Ltd.
Harrison & Co.
Hill (J. C.) & Co., Ltd.
Rylands Bros., Ltd.

Nails, Tacks & Spikes (Cut)

Braby (Frederick) & Co., Ltd.
Explosives Trades, Ltd.
Summers (John) & Sons, Ltd.

Nails, Wrought

Braby (Frederick) & Co., Ltd.
Brockhouse (J.) & Co., Ltd.

Nail Pullers

Mountford (Fredk.) (Birmingham), Ltd.

Nail & Tack Making Machinery

Greenwood & Batley, Ltd.

Nameplates, Metal

Brockhouse (J.) & Co., Ltd.
Carron Company.
Explosives Trades, Ltd.
Ludlow Bros. (1913), Ltd.
Sale (H. B.), Ltd.
Smith (John), Ltd.

Naphtha, Heavy

Bell Bros., Ltd.
Blaenavon Co., Ltd.
British Dyestuffs Corporation, Ltd.
Brotherton & Co., Ltd.
Burt, Boulton & Haywood, Ltd.
Butler (William) & Co. (Bristol), Ltd.
Cargo Fleet Iron Co., Ltd.
Consett Iron Co., Ltd.
Dorman, Long & Co., Ltd.
Forbes, Abbott & Lennard, Ltd.
Gas Lighting Improvement Co., Ltd.
Leitch (John W.) & Co.
Major & Co., Ltd.
Newton, Chambers & Co., Ltd.
Redbourn Hill Iron & Coal Co., Ltd.
Strakers & Love.

Naphtha, Solvent

Anglo-Persian Oil Co., Ltd.
Baird (William) & Co., Ltd.
Bell Bros., Ltd.
Blaenavon Co., Ltd.
Bolckow, Vaughan & Co., Ltd.
British Dyestuffs Corporation, Ltd.
Brotherton & Co., Ltd.
Butler (William) & Co. (Bristol), Ltd.
Burt, Boulton & Haywood, Ltd.
Cargo Fleet Iron Co., Ltd.
Consett Iron Co., Ltd.
Dorman, Long & Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd
Forbes, Abbott & Lennard, Ltd.
Gas Light & Coke Co.
Gas Lighting Improvement Co., Ltd.
Leitch (John W.) & Co.
Major & Co., Ltd.
Newton, Chambers & Co., Ltd.
Pease & Partners.
Redbourn Hill Iron & Coal Co., Ltd.
Skinningrove Iron Co., Ltd.
South Metropolitan Gas Co.
Strakers & Love.
Staveley Coal & Iron Co., Ltd.
Wilson Bros. Bobbin Co., Ltd.

Naphthalene

Baird (Wm.) & Co., Ltd.
Blaenavon Co., Ltd.
Bolckow, Vaughan & Co., Ltd.
Brotherton & Co., Ltd.
Butler (William) & Co. (Bristol), Ltd.
Burt, Boulton & Haywood, Ltd.
Cargo Fleet Iron Co., Ltd.
Consett Iron Co., Ltd.
Dorman, Long & Co., Ltd.

Napthalene—*continued.*

Ebbw Vale Steel, Iron & Coal Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Forbes, Abbott & Lennard, Ltd.
Gas Light & Coke Co.
Leitch (John W.) & Co.
Major & Co., Ltd.
Newton, Chambers & Co., Ltd.
Pease & Partners, Ltd.
Redbourn Hill Iron & Coal Co., Ltd.
Skinningrove Iron Co., Ltd.
South Metropolitan Gas Co.
Staveley Coal & Iron Co., Ltd.
Strakers & Love.

Naphthol Beta

Berger (Lewis) & Sons, Ltd.
British Dyestuffs Corporation, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Gas Light & Coke Co.
Major & Co., Ltd.
May & Baker, Ltd.
South Metropolitan Gas Co.

Naphthol Salicylate

British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Navigational Instruments

(*See "Instruments."*)

Navvies, Steam (*See "Excavators."*)

Neckties

Neckwear, Ltd.
Wardle & Davenport, Ltd.

Needles, Gramophone

Gramophone Co., Ltd.
Terry (Herbert) & Sons, Ltd.
Tayler (D. F.) & Co., Ltd.

Needles, Surgical

Evans, Sons, Lescher & Webb, Ltd
Maw (S.), Son & Sons, Ltd.
Tayler (D. F.) & Co., Ltd.

Neo-Salvarsan

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Nets & Netting

Linen Thread Co., Ltd.
Morgan, Crossley & Co., Ltd.
Piggott Bros. & Co., Ltd.
Wright (John & Edwin), Ltd.

Nets, Plain, Silk & Mosquito

Boden & Co., Ltd.
Fletcher (William) & Son (Derby), Ltd.

Netting, Wire (*See "Wire Netting."*)

Nibs, Pen (*See "Pen-Nibs."*)

Nickel

Coleman & Appleby, Ltd.
Mond Nickel Co., Ltd.
Monk Bridge Iron & Steel Co., Ltd.
Vickers, Ltd.

Nickel-plated Ware

Glover & Main, Ltd.
Sankey (Joseph) & Sons, Ltd.
Short Bros. (Rochester & Bedford), Ltd.

Nickel Products, Chemical

Bolton (Thomas) & Sons, Ltd.
British Drug Houses, Ltd.
Canning (W.) & Co.
Coleman & Appleby, Ltd.
Mond Nickel Co., Ltd.

Nickel Sheets, Anodes, &c.

Blackwell (George G.), Sons & Co., Ltd.
Coleman & Appleby, Ltd.
Hydrogen, Oxygen & Plant Co., Ltd.
Mond Nickel Co., Ltd.

Nickel Silver Goods

Bulpitt & Sons, Ltd.
Collyer (John) & Co., Ltd.
Explosives Trades, Ltd.
Suckling, Ltd.

Nickel Silver, Sheet, Wires, &c.

Earle, Bourne & Co., Ltd.
Vivian (H. H.) & Co., Ltd.

Nicotine

Bush (W. J.) & Co., Ltd.
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Nigrosine

British Dyestuffs Corporation, Ltd.
Leitch (John W.) & Co.

Nippers (*See "Pliers."*)

Nitrate Plant

Mechans, Ltd.
Piggott (Thomas) & Co., Ltd.
Tees Side Bridge & Engineering Works, Ltd.

Nitro Benzene (Oil of Myrbane)

British Dyestuffs Corporation, Ltd.
Leitch (John W.) & Co.

Nitro Toluene

British Dyestuffs Corporation, Ltd.
Leitch (John W.) & Co.

Numbering & Paging Machines

Sale (H. B.), Ltd.
Waterlow & Sons Ltd.

Nuts (*See "Bolts and Nuts."*)

O

Oakum

Mountford (Fredk.) (Birmingham), Ltd.

Oatmeal

Crosse & Blackwell (Mfg. Co.), Ltd.
Vernon (W.) & Sons, Ltd.
White, Tomkins & Courage, Ltd.

Ohmmeters (*See "Instruments, Electrical."*)

Oil, Almond

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Oil Cake (*See "Meal, etc."*)

Oil Caps (*See "Lubricators."*)

Oil, Castor

Crosse & Blackwell (Mfg. Co.), Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Hess (Adolph) & Brother, Ltd.
May & Baker, Ltd.

Oil, Cod Liver

Evans, Sons, Lescher & Webb, Ltd.

Oil, Cottonseed (*See "Oil, Linseed, etc."*)

Oil, Croton

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Oil Engines (*See "Engines, Oil."*)

Oil Filters & Cabinets
(*See "Filters, Oil."*)

Oil Fuel Apparatus

Alldays & Onions, Ltd.
Blakeborough (J.) & Sons, Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Manlove, Alliott & Co., Ltd.
Thornycroft (John I.) & Co., Ltd.
Whessoe Foundry Co., Ltd.
White (J. Samuel) & Co., Ltd.

Oil, Illuminating

Anglo-Persian Oil Co., Ltd.
Asiatic Petroleum Co., Ltd.
Baird (William) & Co., Ltd.
Low Temperature Carbonisation, Ltd.
Rose (Sir W. A.) & Co., Ltd.

Oil, Linseed & Cottonseed

Banner (Samuel) & Co., Ltd.
Bibby (J.) & Sons, Ltd.
British Oil & Cake Mills, Ltd.
Crosfield (Joseph) & Sons, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Hess (Adolph) & Brother, Ltd.
Silcock (R.) & Sons, Ltd.

Oil, Lubricating

Anglo-Persian Oil Co., Ltd.
Asiatic Petroleum Co., Ltd.
Banner (Samuel) & Co., Ltd.
Bell's United Asbestos Co., Ltd.
Butler (William) & Co. (Bristol), Ltd.
Duckham (Alexander) & Co., Ltd.
Gaunt & Hickman.
Hess (Adolph) & Brother, Ltd.
Low Temperature Carbonisation, Ltd.
Rose (Sir W. A.) & Co., Ltd.
Silcock (R.) & Sons, Ltd.
Snowdon, Sons & Co., Ltd.
Thornley (Samuel), Ltd.
Wakefield (C. C.) & Co., Ltd.

Oil Mill Machinery

Brinjes & Goodwin, Ltd.
Greenwood & Batley, Ltd.
Hollings & Guest, Ltd.
Manlove, Alliott & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Rose, Downs & Thompson, Ltd.

Oil Refinery Plant

Greenwood & Batley, Ltd.
Head, Wrightson & Co., Ltd.
Manlove, Alliott & Co., Ltd.
Mechans, Ltd.
Piggott (Thomas) & Co., Ltd.
Rose, Downs & Thompson, Ltd.
Whessoe Foundry Co., Ltd.

Oil, Salad & Cooking

Bibby (J.) & Sons, Ltd.
British Oil & Cake Mills, Ltd.
Crosse & Blackwell (Mfg. Co.), Ltd.
Evans, Sons, Lescher & Webb, Ltd.

Oil Separators (*See "Separators."*)

Oil Well Plant (*See "Well Boring, etc."*)

Oils (Dipping)

Baird (Wm.) & Co., Ltd.
Banner (Samuel) & Co., Ltd.
Butler (William) & Co. (Bristol), Ltd.
Duckham (Alexander) & Co., Ltd.
Gaunt & Hickman.

Oils, Essential

Boake (A.), Roberts & Co., Ltd.
Bush (W. J.) & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
Silcock (R.) & Sons, Ltd.
Whiffen & Sons, Ltd.

Oils, Fuel

Anglo-Persian Oil Co., Ltd.
Asiatic Petroleum Co., Ltd.
Baird (William) & Co., Ltd.
Banner (Samuel) & Co., Ltd.
Brotherton & Co., Ltd.
Burt, Boulton & Haywood, Ltd.
Butler (William) & Co. (Bristol), Ltd.
Dinnington Main Coal Co., Ltd.
Gas Light & Coke Co.
Low Temperature Carbonisation, Ltd.
Major & Co., Ltd.
Newton, Chambers & Co., Ltd.
Redbourn Hill Iron & Coal Co., Ltd.

Oils (Paint)

Anderson (D.) & Son, Ltd.
Banner (Samuel) & Co., Ltd.
Berger (Lewis) & Sons, Ltd.
Brotherton & Co., Ltd.
Butler (William) & Co. (Bristol), Ltd.
Duckham (Alexander) & Co., Ltd.
Gaunt & Hickman.
International Paint & Compositions Co., Ltd.
Rose (Sir W. A.) & Co., Ltd.

Oils, Soluble

Butler (William) & Co. (Bristol), Ltd.
Duckham (Alexander) & Co., Ltd.
Gaunt & Hickman.

Oils Soluble,—*continued.*

Hess (Adolph) & Brother, Ltd.
Major & Co., Ltd.
Rose (Sir W. A.) & Co., Ltd.
Thornley (Samuel), Ltd.

Oils, Various

Anglo-Persian Oil Co., Ltd.
Banner (Samuel) & Co., Ltd.
Crosfield (Joseph) & Sons, Ltd.
Gaunt & Hickman.
Hess (Adolph) & Brother, Ltd.
Rose (Sir W. A.) & Co., Ltd.
United Turkey Red Co., Ltd.

Oils, Vegetable

Bibby (J.) & Sons, Ltd.
British Oil & Cake Mills, Ltd.
Crosfield (Joseph) & Sons, Ltd.
Hess (Adolph) & Brother, Ltd.
Loders & Nucoline, Ltd.
Silcock (R.) & Sons, Ltd.
White, Tomkins & Courage, Ltd.

Oil Stones

Universal Grinding Wheel Co., Ltd.

Oil Stoves

Explosives Trades, Ltd.
Manlove, Alliott & Co., Ltd.
Valor Co., Ltd.

Oilers, Oil Feeders & Oil Fillers

Benton & Stone, Ltd.
Braime (T. F.) & Co., Ltd.
Bulpitt & Sons, Ltd.
Lucas (Joseph), Ltd.

Oleine

Duckham (Alexander) & Co., Ltd.
Hess (Adolph) & Brother, Ltd.
May & Baker, Ltd.
United Turkey Red Co., Ltd.

Oleum

Explosives Trades, Ltd.
Spencer, Chapman & Messel, Ltd.
Staveley Coal & Iron Co., Ltd.
United Alkali Co., Ltd.

Openers, Tin

Mountford (Fredk.) (Birmingham), Ltd.
Terry (Herbert) & Sons, Ltd.

Optical Goods

Barr & Stroud, Ltd.
Chance Bros. & Co., Ltd.
Cooke (T.) & Sons, Ltd.
Halden (J.) & Co., Ltd.
Maw (S.), Son & Sons, Ltd.

Optical Projection Apparatus

Barr & Stroud, Ltd.

Optical Working Machinery

Barr & Stroud, Ltd.
Cooke (T.) & Sons, Ltd.

Ore Separators (*See "Separators."*)

Organs

Bell Piano & Organ Co., Ltd.

Ornamental Iron & Steel Work

(*See "Iron and Steelwork, Art, and Ornamental."*)

Osmium & Salts

Johnson, Matthey & Co., Ltd.
May & Baker, Ltd.

Ovens, Annealing

(*See "Furnaces, Annealing."*)

Ovens, Coke

Head, Wrightson & Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Piggott (Thomas) & Co., Ltd.

Ovens, Electric

(*See "Electric Cooking and Heating Apparatus."*)

Ovens, Portable & Various

Glover & Main, Ltd.
Monometer Manufacturing Co. (1918), Ltd.
Wright (John) & Eagle Range, Ltd.

Overalls

Vickers, Ltd.

Overhead Runways

(*See "Cableways and Runways."*)

Oxalates

British Drug Houses, Ltd.
May & Baker, Ltd.

Oxy-Acetylene Welding & Cutting Plant

Acetylene Corporation of Great Britain, Ltd.
British Oxygen Co., Ltd.
Hydrogen, Oxygen & Plant Co., Ltd.
Matthews & Yates, Ltd.

Oxygen Cylinders

(*See "Cylinders, Gas-containing."*)

Oxygen Gas Plant

Acetylene Corporation of Great Britain, Ltd.
British Oxygen Co., Ltd.
Hydrogen, Oxygen & Plant Co., Ltd.
Piggott (Thomas) & Co., Ltd.

Ozone Apparatus

Mechans, Ltd.

P

Packings, Jointing Materials, &c.

Austin (Charles E.) & Sons, Ltd.
Beldam Packing & Rubber Co., Ltd.
Bell's United Asbestos Co., Ltd.
Callender's Cable & Construction Co., Ltd.
Gaunt & Hickman.
Greengate & Irwell Rubber Co., Ltd.
Hobdell, Way & Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Moseley (David) & Sons, Ltd.
Snowdon, Sons & Co., Ltd.
Stott (James), Ltd.
Turner Bros. Asbestos Co., Ltd.
Warne (William) & Co., Ltd.
Wright (John & Edwin), Ltd.

Paddle Boats (*See "Shallow Draught Vessels."*)

Padlocks

Cotterill (Edwin) & Co., Ltd.
Erebus Manufacturing Co., Ltd.
Glover & Main, Ltd.
Tann (John), Ltd.

Pails
(*See "Galvanized Iron Goods" and "Buckets."*)

Paint, Aluminium

Aluminium Corporation, Ltd.
Berger (Lewis) & Sons, Ltd.
Clark (Robert Ingham) & Co., Ltd.
Docker Bros., Ltd.
International Paint & Compositions Co., Ltd.
Jenson & Nicholson, Ltd.
Metal Powders, Ltd.
Orr's Zinc White, Ltd.
Rose (Sir W. A.) & Co., Ltd.

Paint Mills

Brinjes & Goodwin, Ltd.
Stothert & Pitt, Ltd.

Painters' Tools (*See "Hand Tools."*)

Paints & Colours

Berger (Lewis) & Sons, Ltd.
Clark (Robert Ingham) & Co., Ltd.
Cookson & Co., Ltd.
Docker Bros., Ltd.
International Paint & Compositions Co., Ltd.
Jenson & Nicholson, Ltd.
Metal Powders, Ltd.
Orr's Zinc White, Ltd.
Rose (Sir W. A.) & Co., Ltd.

Paints, Marine

Anderson (D.) & Son, Ltd.
Berger (Lewis) & Sons, Ltd.
Callender's Cable & Construction Co., Ltd.
Clark (Robert Ingham) & Co., Ltd.
Docker Bros., Ltd.
International Paint & Compositions Co., Ltd.
Jenson & Nicholson, Ltd.
Metal Powders, Ltd.
Rose (Sir W. A.) & Co., Ltd.

Paints, Metal

Berger (Lewis) & Sons, Ltd.
Callender's Cable & Construction Co., Ltd.
Clark (Robert Ingham) & Co., Ltd.
Docker Bros., Ltd.
International Paint & Compositions Co., Ltd.
Jenson & Nicholson, Ltd.
Metal Powders, Ltd.
Rose (Sir W. A.) & Co., Ltd.

Palladium & Salts

Johnson, Matthey & Co., Ltd.
May & Baker, Ltd.
Mond Nickel Co., Ltd.

Pancreatin

May & Baker, Ltd.

Pans (*See "Hollow-ware," "Tinware," etc.*)

Pans, Vacuum

Bridge (David) & Co., Ltd.
Brinjes & Goodwin, Ltd.
Head, Wrightson & Co., Ltd.
Manlove, Alliott & Co., Ltd.
Mechans, Ltd.
Mirrlees, Watson Co., Ltd.
Newton, Chambers & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
United Brassfounders & Engineers, Ltd.
Whessoe Foundry Co., Ltd.

Pants (*See "Underwear."*)

Papain

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Paper Bags, Boxes, Cartons, &c.

Chorley & Pickersgill, Ltd.
Cooke (Alf.), Ltd.
Heywood (John), Ltd.
Marsden (Charles) & Sons, Ltd.
Millington & Sons, Ltd.
Smith, Stone & Knight, Ltd.
Spicer (James) & Sons, Ltd.
Tillotson & Son, Ltd.

Paper Bag-making Machinery

Smith, Stone & Knight, Ltd.

Paper, Blotting

Dickinson (John) & Co., Ltd.
Heywood (John), Ltd.
Marsden (Charles) & Sons, Ltd
Millington & Sons, Ltd.
Peebles (A. M.) & Son, Ltd.
Pirie (Alex.) & Sons, Ltd.
Spicer (James) & Sons, Ltd.
Waterlow & Sons Ltd.
Weir (J. A.), Ltd.
Witherby & Co.

Paper, Carbon

Barlock Typewriter Co., Ltd.
Millington & Sons, Ltd.
Setten & Durward.
Spicer (James) & Sons, Ltd.
Waterlow & Sons, Ltd.

Papers, Cigarette (*See "Cigarette Papers."*)

Paper Coating Machinery

Mather & Platt, Ltd.

Paper, Coated

Backhouse & Coppock, Ltd.
Blackwell (Robert W.) & Co., Ltd.
Cooke (Alf.), Ltd.
Dickinson (John) & Co., Ltd.
Doncaster Wire Co., Ltd.
Olive & Partington, Ltd.
Peebles (A. M.) & Son, Ltd.
Pirie (Alex.) & Sons, Ltd.
Spicer (James) & Sons, Ltd.

Paper, Drawing

Allnutt (Henry) & Son.
Dickinson (John) & Co., Ltd.
Empire Paper Mills, Ltd.
Halden (J.) & Co., Ltd.
Hall (B. J.) & Co., Ltd.

Paper, Drawing—*continued.*

Marsden (Charles) & Sons, Ltd.
Millington & Sons, Ltd.
Northfleet Paper Mills, Ltd.
Peebles (A. M.) & Son, Ltd.
Pirie (Alex.) & Sons, Ltd.
Ramsbottom (Charles) & Sons, Ltd.
Spicer (James) & Sons, Ltd.
Weir (J. A.), Ltd.

Paper Fasteners, Clips & Binders

Macniven & Cameron, Ltd.
Mitchell (William) (Pens), Ltd.
Norton, Gregory, Ltd.
Setten & Durward.
Smith (John), Ltd.
Tayler (D. F.) & Co., Ltd.
Terry (Herbert) & Sons, Ltd.
Waterlow & Sons Ltd.

Paper Mill Machinery

Aircraft Manufacturing Co., Ltd.
Boving & Co., Ltd.
Hollings & Guest, Ltd.

Paper, News

Donside Paper Co., Ltd.
Imperial Paper Mills, Ltd.
Marsden (Charles) & Sons, Ltd.

Paper, Photographic

Backhouse & Coppock, Ltd.
Halden (J.) & Co., Ltd.
Hall (B. J.) & Co., Ltd.
Norton & Gregory, Ltd.
Pirie (Alex.) & Sons, Ltd.

Paper, Roofing & Building

Anderson (D.) & Son, Ltd.
Smith, Stone & Knight, Ltd.
Spicer (James) & Sons, Ltd.
Vulcanite, Ltd.

Paper, Sand (*See "Abrasives."*)

Paper, Tissue

Millington & Sons, Ltd.
Smith, Stone & Knight, Ltd.
Spicer (James) & Sons, Ltd.

Paper, Tracing

Halden (J.) & Co., Ltd.
Hall (B. J.) & Co., Ltd.
Millington & Sons, Ltd.
Norton & Gregory, Ltd.
Pirie (Alex.) & Sons, Ltd.
Spicer (James) & Sons, Ltd.
Waterlow & Sons Ltd.

Paper, Wall (*See "Wallpaper."*)

Paper, Wrapping

Dickinson (John) & Co., Ltd.
Heywood (John), Ltd.
Marsden (Charles) & Sons, Ltd.
Millington & Sons, Ltd.
Olive & Partington, Ltd.
Peebles (A. M.) & Son, Ltd.
Smith, Stone & Knight, Ltd.
Spicer (James) & Sons, Ltd.

Paper, Writing & Printing

Allnutt (Henry) & Son.
Backhouse & Coppock, Ltd.
Dickinson (John) & Co., Ltd.
Donside Paper Co., Ltd.
East Lancashire Paper Mill Co., Ltd.
Empire Paper Mills.
Heywood (John), Ltd.
Imperial Paper Mills, Ltd.
Marsden (Charles) & Sons, Ltd.
Millington & Sons, Ltd.
Northfleet Paper Mills, Ltd.
Olive & Partington, Ltd.
Peebles (A. M.) & Son, Ltd.
Pirie (Alex.) & Sons, Ltd.
Ramsbottom Paper Mill Co., Ltd.
Spicer (James) & Sons, Ltd.
Waterlow & Sons Ltd.
Weir (J. A.), Ltd.
Witherby & Co.

Paraldehyde

Boake (A.), Roberts & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Paramidophenol

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Passenger Vessels

Beardmore (William) & Co., Ltd.
Brown (John) & Co., Ltd.
Fairfield Shipbuilding & Engineering Co., Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Hill (Charles) & Sons, Ltd.
Hill (J. & P.).
Laing (Sir James) & Sons, Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Short Bros. (Rochester & Bedford), Ltd.
Thornycroft (John I.) & Co., Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.
Yarrow & Co., Ltd.

Patent Fuel (*See "Fuel, Patent."*)

Paviors' Tools (*See "Hand Tools, Masons'."*)

Paving Material

Bell's United Asbestos Co., Ltd.

Pearlash

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Pelton Wheels (*See "Wheels, Water."*)

Pencils, Lead

Halden (J.) & Co., Ltd.
Waterlow & Sons Ltd.

Pencils, Lead, Machinery

Brinjes & Goodwin, Ltd.

Pencil Sharpening Machines

Roneo, Ltd.
Setten & Durward.

Penholders

Baker & Fennemore, Ltd.
Macniven & Cameron, Ltd.
Mitchell (William) (Pens), Ltd.
Setten & Durward.
Waterlow & Sons Ltd.

Pen Nibs
Baker & Finnemore, Ltd.
Heywood (John), Ltd.
Macniven & Cameron, Ltd.
Millington & Sons, Ltd.
Mitchell (William) (Pens), Ltd.
Setten & Durward.
Waterlow & Sons Ltd.

Pens, Fountain
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Macniven & Cameron, Ltd.
Setten & Durward.

Pepper
Crosse & Blackwell (Mfg. Co.), Ltd.
Maconochie Bros., Ltd.
Nagersheth (M.) Sons.

Pepsin
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Perambulators (*See "Baby Carriages."*)

Perforated Metal
Greening (N.) & Sons, Ltd.
Harvey (G. A.) & Co. (London), Ltd.
Ludlow Bros. (1913), Ltd.

Perfumes, Natural
Bush (W. J.) & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Harrod's' Ltd.

Perfumes, Synthetic
Bush (W. J.) & Co., Ltd.
Crosfield (Joseph) & Sons, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Harrod's, Ltd.

Pestles & Mortars
Evans, Sons, Lescher & Webb, Ltd.
Maw (S.), Son & Sons, Ltd.

Petrol
Asiatic Petroleum Co., Ltd.
Butler (William) & Co. (Bristol), Ltd.
Duckham (Alexander) & Co., Ltd.
Gas Lighting Improvement Co., Ltd.
Major & Co., Ltd.

Petroleum Products
Butler (William) & Co. (Bristol), Ltd.
Duckham (Alexander) & Co., Ltd.
Gas Lighting Improvement Co., Ltd.
Gaunt & Hickman.
Hess (Adolph) & Brother, Ltd.
Major & Co., Ltd.

Pharmaceutical Chemicals
(*See "Drugs, Pharmaceutical."*)

Phenacetin
British Dyestuffs Corporation, Ltd.
Bush (W. J.) & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Gas Light & Coke Co.
May & Baker, Ltd.

Phenolphthalein
Boots Pure Drug Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Phenozone
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Phonographs (*See "Gramophones."*)

Phosphates
Boake (A.), Roberts & Co., Ltd.
British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
Sturtevant Engineering Co., Ltd.

Phosphate Triphenyl & Tricresyl
British Cellulose & Chemical Manufacturing Co. Ltd.
May & Baker, Ltd.

Phosphorus
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Phosphorus Chlorides
British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Photo Copying Apparatus & Materials (Engineers')
Halden (J.) & Co., Ltd.
Hall (B. J.) & Co., Ltd.
Norton & Gregory, Ltd.

Photographic Apparatus & Supplies
Dennison's Watch Case Co., Ltd.
Halden (J.) & Co., Ltd.
Hall (B. J.) & Co., Ltd.

Photographic Chemicals
Boake (A.), Roberts & Co., Ltd.
British Drug Houses, Ltd.
British Dyestuffs Corporation, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Photographic Lenses (*See "Lenses."*)

Phthalic Anhydride
British Drug Houses, Ltd.
British Dyestuffs Corporation, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Pianos & Piano Players
Bell Piano & Organ Co., Ltd.

Piano Stools
Bell Piano & Organ Co., Ltd.
Birch (William), Ltd.
Central Aircraft Co.
Lebus (Harris).

Piano Wire
(*See "Wire, Piano and Musical Instrument."*)

Pickles
Crosse & Blackwell (Mfg. Co.), Ltd.
Maconochie Bros., Ltd.

Picks, Pickaxes & Mattocks

Hadfields, Ltd.
Hardy Patent Pick Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.
Yates (John) & Co., Ltd.

Piers

Arrol (Sir William) & Co., Ltd.
Braithwaite & Co.
British Steel Piling Co.
Clay Cross Co., Ltd.
Head, Wrightson & Co., Ltd.
Horsehay Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Keay (E., C. & J.), Ltd.
Motherwell Bridge Co., Ltd.
Mechans, Ltd.
Orr, Watt & Co., Ltd.
Westwood (Joseph) & Co., Ltd.
Wood (Edward) & Co., Ltd.

Pile-driving Plant

British Steel Piling Co.
Clarke, Chapman & Co., Ltd.
Holt & Willetts.
Osborn (Samuel) & Co., Ltd.
Stothert & Pitt, Ltd.
Youngs.

Piles

Braithwaite & Co.
British Steel Piling Co.
Cargo Fleet Iron Co., Ltd.
Head, Wrightson & Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Motherwell Bridge Co., Ltd.
Orr, Watt & Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Spencer (John), Ltd.
Stanton Ironworks Co., Ltd.
Wood (Edward) & Co., Ltd.

Pile Shoes

British Steel Piling Co.
Head, Wrightson & Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Motherwell Bridge Co., Ltd.
Newton, Chambers & Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Spencer (John), Ltd.
Stanton Ironworks Co., Ltd.
Summerson (Thomas) & Co., Ltd.

Pillars, Drilling

Alldays & Onions, Ltd.
Associated British Machine Tool Makers, Ltd.

Pillows, Air & Water

(*See "Rubber Beds, etc."*)

Pilocarpine Salts

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Pincers (*See "Pliers."*)

Pinions

Allen (Edgar) & Co., Ltd.
Brightside Foundry & Engineering Co., Ltd.
Electro-Mechanical Brake Co., Ltd.
English Electric Co., Ltd.
Hadfields, Ltd.
Horseley Bridge & Engineering Co., Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Osborn (John) & Sons, Ltd.
Parsons' Marine Steam Turbine Co., Ltd.
Spencer (John) & Sons, Ltd.
Wigglesworth (Frank) & Co., Ltd.

Pinking Irons (*See "Hand Tools, Sundry."*)

Pins, Drawing & Drugget

Halden (J.) & Co., Ltd.
Harrison & Co.
Norton & Gregory, Ltd.
Setten & Durward.
Tayler (D. F.) & Co., Ltd.

Pins, Various

Aberdeen Comb Works Co., Ltd.
Orbito Co., Ltd.
Tayler (D. F.) & Co., Ltd.

Pipe Bending Machines

Berry (Henry) & Co., Ltd.
Fielding & Platt, Ltd.
Greenwood & Batley, Ltd.
Hollings & Guest, Ltd.

Pipe Cutting & Threading Machines

Alldays & Onions, Ltd.
Associated British Machine Tool Makers, Ltd
Greenwood & Batley, Ltd.
Holroyd (John) & Co., Ltd.

Pipe Cutters, Hand

Alldays & Onions, Ltd.
Mountford (Fredk.) (Birmingham), Ltd.

Pipe Scraping Apparatus

Blakeborough (J.) & Sons, Ltd.
Glenfield & Kennedy, Ltd.

Pipe Testing Machines

Blakeborough (J.) & Sons, Ltd.
Glenfield & Kennedy, Ltd.
Mechans, Ltd.

Pipe Tongs & Wrenches

(*See "Spanners and Wrenches."*)

Pipes, Aluminium

British Aluminium Co., Ltd.

Pipes, Brass & Copper

Bayliss (William), Ltd.
Birmingham Battery & Metal Co., Ltd.
Bolton (Thomas) & Sons, Ltd.
Broughton Copper Co., Ltd.
Clifford (Charles) & Son, Ltd.
Delta Metal Co., Ltd.
United Brassfounders & Engineers, Ltd.
Vivian & Sons, Ltd.
Yorkshire Copper Works, Ltd.

Pipes, Cast Iron

Ashwell & Nesbit, Ltd.
Blakeborough (J.) & Sons, Ltd.
Brightside Foundry & Engineering Co., Ltd.
Carron Company.
Clay Cross Co., Ltd.
Cochrane & Co. (Woodside), Ltd.
Holman Bros., Ltd.
Holmes (W. C.) & Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Newton, Chambers & Co., Ltd.
North Eastern Marine Engineering Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Pulsometer Engineering Co., Ltd.
Sheepbridge Coal & Iron Co., Ltd.
Stanton Ironworks Co., Ltd.
Staveley Coal & Iron Co., Ltd.
Stewarts & Lloyds, Ltd.
Yates & Thom, Ltd.

Pipes, Drain, Earthenware

Doulton & Co., Ltd.
Jennings (George), Ltd.

Pipes, Iron & Steel, Rivetted

Boving & Co., Ltd.
Braby (Frederick) & Co., Ltd.
Braithwaite & Co.
British Mannesmann Tube Co. Ltd.
Clayton, Son & Co., Ltd.
Findlay (Alex.) & Co., Ltd.
Harvey (G. A.) & Co. (London), Ltd.
Holmes (W. C.) & Co., Ltd.
Horsehay Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Ludlow Bros. (1913), Ltd.
Mechans, Ltd.
Morton (Francis) & Co., Ltd.
Motherwell Bridge Co., Ltd.
Newton, Chambers & Co., Ltd.
Orr, Watt & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Spencer (John), Ltd.
Stewarts & Lloyds, Ltd.
Tees Side Bridge & Engineering Works, Ltd
Whessoe Foundry Co., Ltd.
Westwood (Joseph) & Co., Ltd.
Yates & Thom, Ltd.

Pipes, Lead

Cookson & Co., Ltd.
Glover (W. T.) & Co., Ltd.
Jennings (George), Ltd.
Mellowes & Co., Ltd.
Vickers, Ltd.
Vivian & Sons, Ltd.

Pipes, Stand (*See "Stand Pipes."*)

Pipes, Tobacco

Dunhill (Alfred).

Pipes, Welded (Gas, Water, Steam, &c.) (*See "Tubes."*)

Pistols (*See "Fire-arms."*)

Pistons & Rings

Beyer, Peacock & Co., Ltd.
Brightside Foundry & Engineering Co., Ltd.
Derwent Foundry Co. (1920), Ltd.
Fairfield Shipbuilding & Engineering Co., Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
North British Locomotive Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Richards (J. H.) & Co., Ltd.
Yates & Thom, Ltd.

Pit Head Frames & Gears (*See "Colliery Plant."*)

Pitch

Baird (William) & Co., Ltd.
Blaenavon Co., Ltd.
Brentford Gas Co.
British Oil Cake Mills, Ltd.
Brotherton & Co., Ltd.
Burt, Boulton & Haywood, Ltd.
Butler (William) & Co. (Bristol), Ltd.
Callender's Cable & Construction Co., Ltd.
Clarke, Stephenson & Co.
Dinnington Main Coal Co., Ltd.
Dorman, Long & Co., Ltd.
Forbes, Abbott & Lennard, Ltd.
Gas Light & Coke Co.
Hess (Adolph) & Brother, Ltd.
Major & Co., Ltd.
Newton, Chambers & Co., Ltd.
Pease & Partners, Ltd.
Redbourn Hill Iron & Coal Co., Ltd.
Rose (Sir W. A.) & Co., Ltd.
South Metropolitan Gas Co.
Staveley Coal & Iron Co., Ltd.

Plait (Straw Hat)

Fabricless Products, Ltd.
Lye (T.) & Sons.

Planes, Carpenters' (*See "Hand Tools."*)

Planing Machines

Armstrong (Sir W. G.), Whitworth & Co., Ltd
Associated British Machine Tool Makers, Ltd.
Beyer, Peacock & Co., Ltd.
Butler Machine Tool Co., Ltd.
Craven Bros. (Manchester), Ltd.
Greenwood & Batley, Ltd.
Haighs (Oldham), Ltd.
Holroyd (John) & Co., Ltd.
Selson Engineering Co., Ltd.

Plantation Tools (*See "Hand Tools."*)

Plaster of Paris

Evans, Sons, Lescher & Webb, Ltd.

Plasters (Medicinal)

British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Plate Baskets (*See "Basket-ware."*)

Platelayers' Tools

Hardy Patent Pick Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Summerson (Thomas) & Sons, Ltd.

Plate Powder

Boots Pure Drug Co., Ltd.
Walker & Hall, Ltd.

Plate Racks (*See "Wooden-ware, Domestic."*)

Platinum

Johnson, Matthey & Co., Ltd.
Mond Nickel Co., Ltd.

Platinum Salts

Johnson, Matthey & Co., Ltd.
May & Baker, Ltd

Pliers

Kayser, Ellison & Co., Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
Smith (T.) & Sons, of Saltley, Ltd.

Ploughs

Agricultural & General Engineers, Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Ransomes, Sims & Jefferies, Ltd.
Ruston & Hornsby, Ltd.

Ploughs, Disc

Agricultural & General Engineers, Ltd.
Fowler (John) & Co. (Leeds), Ltd.
MacLaren (J. & H.), Ltd.
Ransomes, Sims & Jefferies, Ltd.

Ploughs, Motor

Agricultural & General Engineers, Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Ransomes, Sims & Jefferies, Ltd.

Ploughs, Tractor

Agricultural & General Engineers, Ltd.
Clayton & Shuttleworth, Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Ransomes, Sims & Jefferies, Ltd.
Wright (John & Edwin), Ltd.

Plugs, Fusible

Blakeborough (J.) & Sons, Ltd.
Cradley Boiler Co., Ltd.
Suckling, Ltd.
Tucker (J. H.) & Co., Ltd.

Plugs, Wall

Tucker (J. H.) & Co., Ltd.

Plumbago

Evans, Sons, Lescher & Webb, Ltd.
Morgan Crucible Co., Ltd.
Salt Union, Ltd.

Plumbers' Tools *(See "Hand Tools.")*

Plumb Bobs

Hooker (Peter), Ltd.

Plummer Blocks

Bridge (David) & Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Unbreakable Pulley & Millgearing Co., Ltd.
Wigglesworth (Frank) & Co., Ltd.
Yates & Thom, Ltd.

Plushes

Drey, Simpson & Co., Ltd.
Fur Fabric Co., Ltd.
Lister & Co., Ltd.

Ply-wood

Lebus (Harris).
Remer (John) & Co., Ltd.
Vickers, Ltd.

Pneumatic Apparatus

Armstrong (Sir W. G.), Whitworth & Co., Ltd
Cooke (T.) & Sons, Ltd.
Holman Bros., Ltd.
Matthews & Yates, Ltd.
Simon (Henry), Ltd.

Pneumatic Tools

(See "Hand Tools, Pneumatic.")

Pocket Books

Brooks (J. B.) & Co., Ltd.
Dean & Co. (Stockport), Ltd.
Dickinson (John) & Co., Ltd.
Finnigans, Ltd.
Heywood (John), Ltd.
Millington & Sons, Ltd.
Norton & Gregory, Ltd.
Sinclair (William) & Sons (Stationers) Ltd.
Spicer (James) & Sons, Ltd.
Waterlow & Sons Ltd.

Points & Crossings

Allen (Edgar) & Co., Ltd.
Bain (William) & Co., Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Hadfields, Ltd.
Hudson (Robert), Ltd.
Kerr, Stuart & Co., Ltd.
MacLellan (P. & W.), Ltd.
Osborn (Samuel) & Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Summerson (Thomas) & Sons, Ltd.
Vickers, Ltd.

Points, Masons' *(See "Hand Tools, Masons'.")*

Pokers *(See "Furniture, Hearth.")*

Pole Axes *(See "Choppers and Cleavers.")*

Poles, Iron & Steel

Armstrongs & Main, Ltd.
Bayliss, Jones & Bayliss, Ltd.
Blackwell (Robert W.) & Co., Ltd.
British Mannesmann Tube Co., Ltd.
Bullers, Ltd.
Cleveland Bridge & Engineering Co., Ltd.
Consolidated Signal Co., Ltd.
Findley (Alex.) & Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Mechans, Ltd.
Morton (Francis) & Co., Ltd.
Russell (John) & Co., Ltd.
Spencer (John), Ltd.
Stewarts & Lloyds, Ltd.

Poles, Telegraph (Wooden)

Blackwell (Robert W.) & Co., Ltd.
Burt, Boulton & Haywood, Ltd.
Calders, Ltd.
Remer (John) & Co., Ltd.

Polish, Boot & Shoe

Paton, Calvert & Co., Ltd.
Wren (William) & Co., Ltd.

Polish, Floor & Furniture

Berger (Lewis) & Sons, Ltd.
Cooper (William) & Nephews.
Jenson, Nicholson, Ltd.
Paton, Calvert & Co., Ltd.
Wren (William) & Co., Ltd.

Polish, Metal

Berger (Lewis) & Sons, Ltd.
Canning (W.) & Co.
International Paint & Compositions Co., Ltd.
Paton, Calvert & Co., Ltd.
Wren (William) & Co., Ltd.

Pontoons

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Braithwaite & Co.
Cleveland Bridge & Engineering Co., Ltd.
Mechans, Ltd.
Morton (Francis) & Co., Ltd.
Motherwell Bridge Co., Ltd.
Orr, Watt & Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Short Bros. (Rochester & Bedford), Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Vickers, Ltd.
Westwood (Joseph) & Co., Ltd.
White (J. Samuel) & Co., Ltd.
Wood (Edward) & Co., Ltd.

Porcelain (Laboratory) & Chemical Ware

Bullers, Ltd.
Doulton & Co., Ltd.
Vickers, Ltd.

Porcelain & Porcelain-ware

(See "China-ware.")

Portable Forges *(See "Forges.")*

Port Lights, Ships'

(See "Ships' Casements and Port Lights.")

Portmanteaux *(See "Trunks.")*

Post Caps & Bases

Bayliss, Jones & Bayliss, Ltd.
Bullers, Ltd.

Postcards, Picture

Jenkinson (Henry), Ltd.
Waterlow & Sons Ltd.

Poster Designing & Printing

Chorley & Pickersgill Ltd.
Cooke (Alf.), Ltd.
Waterlow & Sons Ltd.

Posts

Bayliss Jones & Bayliss, Ltd.

Potash, Caustic

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Potassium Bicarbonate

Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Potassium Bromide

Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Potassium Carbonate

Boake (A.), Roberts & Co., Ltd.
British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Potassium Chlorate

Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Potassium Chloride

Boake (A.), Roberts & Co., Ltd.
British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Potassium Cyanide

Canning (W.) & Co.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Potassium Ferrocyanide

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Potassium Iodide

Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Potassium Nitrate

Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Potassium Permanganate

Evans, Sons, Lescher & Webb, Ltd.
Forbes, Abbott & Lennard, Ltd.
May & Baker, Ltd.

Potassium Salts

Boake (A.), Roberts & Co., Ltd.
British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.
Skinningrove Iron Co. Ltd.

Potassium Sulphate

Evans, Sons, Lescher & Webb, Ltd.
Forbes, Abbott & Lennard, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Pottery & Pottery-ware

Doulton & Co., Ltd.
Jennings (George), Ltd.
Nagersheth (M.) Sons.

Poultry Food

British Oil & Cake Mills, Ltd.
Spiller's Milling & Associated Industries, Ltd.
White, Tomkins & Courage, Ltd.

Powder, Blasting, Gun, &c.

(See "Explosives.")

Precious Stones

Ginder & Ginder.

Precision Tools

Associated British Machine Tool Makers, Ltd.
Churchill (Charles) & Co., Ltd.
Garrard & Co., Ltd.
Hill (J. & P.).
Hooker (Peter), Ltd.
Jones (A. A.) & Shipman, Ltd.
Lye (T.) & Sons.
Robinhood Engineering Works, Ltd.

Preservatives, Food

Boake (A.), Roberts & Co., Ltd.
Borax Consolidated, Ltd.
Duckworth & Co.
May & Baker, Ltd.

Preservatives, Wood

Anderson (D.) & Son, Ltd.
Brotherton & Co., Ltd.
Burt, Boulton & Haywood, Ltd.
Butler (William) & Co. (Bristol), Ltd.
Clark (Robert Ingham) & Co., Ltd.
Cooper (William) & Nephews.
Major & Co., Ltd.
May & Baker, Ltd.
Rose (Sir W. A.) & Co., Ltd.

Preserving Pans

Brinjes & Goodwin, Ltd.
British Aluminium Co., Ltd.
Bulpitt & Sons, Ltd.
Sankey (Joseph) & Sons, Ltd.
Welsh Tinplate & Metal Stamping Co., Ltd.

Press Tools (*See "Punches and Dies."*)

Presses

Accles & Pollock, Ltd.
Berry (Henry) & Co., Ltd.
Bridge (David) & Co., Ltd.
Brinjes & Goodwin, Ltd.
Fielding & Platt, Ltd.
Hollings & Guest, Ltd.
Jones (A. A.) & Shipman, Ltd.
Manlove, Alliott & Co., Ltd.
Sale (H. B.), Ltd.

Presses, Baling

Berry (Henry) & Co., Ltd.
Bridge (David) & Co., Ltd.
Fielding & Platt, Ltd.
Greenwood & Batley, Ltd.
Hollings & Guest, Ltd.
Robertson & Orchard, Ltd.
Ruston & Hornsby, Ltd

Presses, Embossing

Berry (Henry) & Co., Ltd.
Greenwood & Batley, Ltd.
Hollings & Guest, Ltd.

Presses, Filter

Berry (Henry) & Co., Ltd.
Brinjes & Goodwin.
Greenwood & Batley, Ltd.
Hollings & Guest, Ltd.
Manlove, Alliott & Co., Ltd.
Mather & Platt, Ltd.
Piggott (Thomas) & Co., Ltd.
Rose, Downs & Thompson, Ltd.
Vickers, Ltd.

Presses, Forging

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Berry (Henry) & Co., Ltd.
Brightside Foundry & Engineering Co., Ltd.
Davy Bros., Ltd.
Fielding & Platt, Ltd.
Greenwood & Batley, Ltd.
Hollings & Guest, Ltd.

Presses, Hydraulic (*See "Hydraulic, etc."*)

Presses, Lead

Berry (Henry) & Co., Ltd.
Explosives Trades, Ltd.
Greenwood & Batley, Ltd.
Johnson & Phillips, Ltd.
Vickers, Ltd.

Presses, Letter (Copying)

Heywood (John), Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
Setten & Durward.

Presses, Oil, &c.

Brinjes & Goodwin, Ltd.
Greenwood & Batley, Ltd.
Hollings & Guest, Ltd.
Manlove, Alliott & Co., Ltd.
Rose, Downs & Thompson, Ltd.

Press-work, Steel

Accles & Pollock, Ltd.
Braime (T. F.) & Co., Ltd.
Braithwaite & Co.
Brightside Foundry & Engineering Co., Ltd.
Findley (Alex.) & Co., Ltd.
Hurst, Nelson & Co., Ltd.
Joseph (N. C.).
Leeds Forge Co., Ltd.
Ludlow Bros. (1913), Ltd.
Mechans, Ltd
Mitchell (Wm.) (Pens), Ltd.
Motherwell Bridge Co., Ltd.
Pugh (Charles H.), Ltd.
Raleigh Cycle Co., Ltd.
Setten & Durward.
Smith (John), Ltd.
Warne, Wright & Rowland, Ltd.
Williams (Edward).
Vickers, Ltd.

Printing & Publications

Chorley & Pickersgill, Ltd.
Cooke (Alf.), Ltd.
Diprose, Bateman & Co.
Heywood (John), Ltd.
Jenkinson (Henry), Ltd.
Millington & Sons, Ltd.
Philip (George) & Son, Ltd.
Tayler (D. F.) & Co., Ltd.
Tillotson & Son, Ltd.
Vickers, Ltd.
Waterlow & Sons Ltd.
Witherby & Co.

Printing Inks

Kidd (John) & Co., Ltd.
Spicer (James) & Sons, Ltd.
Waterlow & Sons Ltd.

Printing, Lithographic, Photogravure, &c.

Chorley & Pickersgill, Ltd.
Cooke (Alf.), Ltd.
Dean & Co. (Stockport), Ltd.
Millington & Sons, Ltd.
Philip (George) & Son, Ltd.
Tayler (D. F.) & Co., Ltd.
Tillotson & Son, Ltd.
Waterlow & Sons Ltd.
Witherby & Co.

Printing Machinery (Metal Printing)

Aircraft Manufacturing Co., Ltd.
Mann (George) & Co., Ltd.

Printing Presses & Machinery

Aircraft Manufacturing Co., Ltd.
Crabtree (R. W.) & Sons.
Hooker (Peter), Ltd.
Lanston Monotype Corporation, Ltd.
Linotype & Machinery, Ltd.
Mann (George) & Co., Ltd.
Monometer Manufacturing Co. (1918), Ltd.
Northern Press & Engineering Co., Ltd.
Spicer (James) & Sons, Ltd.

Printing, Textile

Calico Printers' Association, Ltd.
Cooke (Alf.), Ltd.
Langworthy Bros. & Co., Ltd.
Simpson & Godlee, Ltd.
Tootal Broadhurst Lee Co., Ltd.

Projectiles

Armstrong (Sir W. G.), Whitworth & Co., Ltd
Beardmore (William) & Co., Ltd.
Hadfields, Ltd.
Projectile & Engineering Co., Ltd.
Vickers, Ltd.

Projectile Machinery

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Associated British Machine Tool Makers, Ltd.
Berry (Henry) & Co., Ltd.
Brightside Foundry & Engineering Co., Ltd.
Craven Bros. (Manchester), Ltd.
Davy Bros., Ltd.
Fielding & Platt, Ltd.
Greenwood & Batley, Ltd.
Holroyd (John) & Co., Ltd.

Propellers

Aircraft Manufacturing Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Beardmore (William) & Co., Ltd.
Blakeborough (J.) & Sons, Ltd.
Carron Company.
Central Aircraft Co.
Darlington Forge, Ltd. (The).
Hawthorn (R. & W.), Leslie & Co., Ltd.
North Eastern Marine Engineering Co., Ltd.
Phosphor Bronze Co., Ltd.
Seamless Steel Boat Co., Ltd.
Short Bros. (Rochester & Bedford), Ltd.
Stone (J.) & Co., Ltd.
Thornycroft (John I.) & Co., Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.
Yarrow & Co., Ltd.

Puddings, in Tins, &c.

Crosse & Blackwell (Mfg. Co.), Ltd.
Maconochie Bros., Ltd.
Simpson (William) (Manchester), Ltd.

Pulleys

Alldays & Onions, Ltd.
Bridge (David) & Co., Ltd.
Bullivant & Co., Ltd.
Hadfields, Ltd.
Osborn (Samuel) & Co., Ltd.
Sheepbridge Coal & Iron Co., Ltd.
Wigglesworth (Frank) & Co., Ltd.
Wright (John & Edwin), Ltd.
Youngs.

Pulleys (for Shafting), Iron & Steel

Bridge (David) & Co., Ltd.
Hadfields, Ltd.
Osborn (Samuel) & Co., Ltd.
Unbreakable Pulley & Millgearing Co., Ltd.
Wigglesworth (Frank) & Co., Ltd.
Yates & Thom, Ltd.

Pumps, Acid & Chemical

Explosives Trades, Ltd.
Gwynnes, Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Lamplough Radiator & Engineering Co., Ltd.
Parsons (C. A.) & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Pulsometer Engineering Co., Ltd.
Rees Roturbo Manufacturing Co., Ltd.
Stone (J.) & Co., Ltd.
United Brassfounders & Engineers, Ltd.

Pumps, Air

Allen (W. H.), Sons & Co., Ltd.
Blackwell (Robert W.) & Co., Ltd.
Brightside Foundry & Engineering Co., Ltd.
Clarke, Chapman & Co., Ltd.
Cooke (T.) & Sons, Ltd.
Gwynnes, Ltd.
Lee, Howl & Co., Ltd.
Manlove, Alliott & Co., Ltd.
Mirrlees, Watson Co., Ltd.
Parsons (C. A.) & Co., Ltd.
Rees Roturbo Manufacturing Co., Ltd.
Sandycroft, Ltd.
Smith (S.) & Sons (Motor Accessories), Ltd.
United Brassfounders & Engineers, Ltd.
Vickers, Ltd.
Weir (G. & J.), Ltd.
White (J. Samuel) & Co., Ltd.
Wood-Milne, Ltd.

Pumps, Bilge

Allen (W. H.), Sons & Co., Ltd.
Benton & Stone, Ltd.
Boving & Co., Ltd.
Clarke, Chapman & Co., Ltd.
Gwynnes, Ltd.
Harvey (G. A.) & Co. (London), Ltd.
Laing (Sir James) & Sons, Ltd.
Lamplough Radiator & Engineering Co., Ltd.
Lee, Howl & Co., Ltd.
North Eastern Marine Engineering Co., Ltd.
Pulsometer Engineering Co., Ltd.
Stone (J.) & Co., Ltd.
Vickers, Ltd.
Weir (G. & J.), Ltd.
White (J. Samuel) & Co., Ltd.

Pumps, Centrifugal

Allen (W. H.) Sons, & Co., Ltd.
Boving & Co., Ltd.
Clayton & Shuttleworth, Ltd.
Gwynnes, Ltd.
Holroyd (John) & Co., Ltd.
Mather & Platt, Ltd.
Matthews & Yates, Ltd.
North Eastern Marine Engineering Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Pulsometer Engineering Co., Ltd.
Ransomes, Sims & Jefferies, Ltd.
Rees Roturbo Manufacturing Co., Ltd.
Robey & Co., Ltd.
Ruston & Hornsby, Ltd.
Thwaites Bros., Ltd.
Vickers, Ltd.
Weir (G. & J.), Ltd.
White (J. Samuel) & Co., Ltd.
Wood (Hugh) & Co., Ltd.

Pumps, Electric

Allen (W. H.), Sons & Co., Ltd.
Arrol (Sir William) & Co., Ltd.
Boving & Co., Ltd.
Callender's Cable & Construction Co., Ltd.
Clarke, Chapman & Co., Ltd.
Crompton & Co., Ltd.
English Electric Co., Ltd.
Fielding & Platt, Ltd.
General Electric Co., Ltd.
Greenwood & Batley, Ltd.
Gwynnes, Ltd.
Lee, Howl & Co., Ltd.
Liverpool Refrigeration Co., Ltd.
Mather & Platt, Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Pulsometer Engineering Co., Ltd.
Rees Roturbo Manufacturing Co., Ltd.
Sandycroft, Ltd.

Pumps, Feed

Boving & Co., Ltd.
Clarke, Chapman & Co., Ltd.
Greenwood & Batley, Ltd.
Gwynnes, Ltd.
Lamplough Radiator & Engineering Co., Ltd.
Lee, Howl & Co., Ltd.
Mather & Platt, Ltd.
North Eastern Marine Engineering Co., Ltd.
Pulsometer Engineering Co., Ltd.
Rees Roturbo Manufacturing Co., Ltd.
Stone (J.) & Co., Ltd.
Thwaites Bros., Ltd.
United Brassfounders & Engineers, Ltd.
Vickers, Ltd.
Weir (G. & J.), Ltd.
White (J. Samuel) & Co., Ltd.
Yates & Thom, Ltd.

Pumps, Fire

Allen (W. H.), Sons & Co., Ltd.
Boving & Co., Ltd.
Gwynnes, Ltd.
Laing (Sir James) & Co., Ltd.
Lee, Howl & Co., Ltd.
Mather & Platt, Ltd.
Pulsometer Engineering Co., Ltd.
Rees Roturbo Manufacturing Co., Ltd.
Stone (J.) & Co., Ltd.
Tilling-Stevens Motors, Ltd.

Pumps, Hand

Ashwell & Nesbit, Ltd.
Benton & Stone, Ltd.
Berry (Henry) & Co., Ltd.
Hollings & Guest, Ltd.
Holt & Willetts.
Laing (Sir James) & Co., Ltd.
Lee, Howl & Co., Ltd.
Stone (J.) & Co., Ltd.
United Brassfounders & Engineers, Ltd.

Pumps, Hydraulic

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Armstrongs & Main, Ltd.
Arrol (Sir William) & Co., Ltd.
Berry (Henry) & Co., Ltd.
Boving & Co., Ltd.
Bridge (David) & Co., Ltd.
Brightside Foundry & Engineering Co., Ltd.
Davy Bros., Ltd.
Fielding & Platt, Ltd.
Glenfield & Kennedy, Ltd.
Greenwood & Batley, Ltd.
Gwynnes, Ltd.
Hollings & Guest, Ltd.
Holt & Willetts.
Lee, Howl & Co., Ltd.
Liverpool Refrigeration Co., Ltd.
Manlove, Alliott & Co., Ltd.
Markham & Co., Ltd.
Pulsometer Engineering Co., Ltd.
Rees Roturbo Manufacturing Co., Ltd.
Robertson & Orchard, Ltd.
Rose, Downs & Thompson, Ltd.
Sandycroft, Ltd.
Stone (J.) & Co., Ltd.
Weir (G. & J.), Ltd.

Pumps, Irrigation

Allen (W. H.), Sons & Co., Ltd.
Boving & Co., Ltd.
Gwynnes, Ltd.
Lee, Howl & Co., Ltd.
Mather & Platt, Ltd.
Pulsometer Engineering Co., Ltd.
Rees Roturbo Manufacturing Co., Ltd.
Stone (J.) & Co., Ltd.
Wild (M. B.) & Co., Ltd.

Pumps, Mining

Allen (W. H.), Sons & Co., Ltd.
Boving & Co., Ltd.
Glenfield & Kennedy, Ltd.
Gwynnes, Ltd.
Holman Bros., Ltd.
Lee, Howl & Co., Ltd.
Mather & Platt, Ltd.
Pulsometer Engineering Co., Ltd.
Rees Roturbo Manufacturing Co., Ltd.
Sandycroft, Ltd.
Wild (M. B.) & Co., Ltd.

Pumps, Oil

Allen (W. H.), Sons & Co., Ltd.
Boving & Co., Ltd.
Brinjes & Goodwin, Ltd.
Clarke, Chapman & Co., Ltd.
Donkin (Bryan) Co., Ltd.
Fielding & Platt, Ltd.
Gwynnes, Ltd.
Lamplough Radiator & Engineering Co., Ltd.

Pumps, Oil—*continued.*

Lee, Howl & Co., Ltd.
Rees Roturbo Manufacturing Co., Ltd.
Stone (J.) & Co., Ltd.
United Brassfounders & Engineers, Ltd.
Valor Co., Ltd.
Wakefield (C. C.) & Co., Ltd.
Weir (G. & J.), Ltd.
White (E. T.) & Co.
Wild (M. B.) & Co., Ltd.

Pumps, Pressure & Test

Berry (Henry) & Co., Ltd.
Boving & Co., Ltd.
British Oxygen Co., Ltd.
Glenfield & Kennedy, Ltd.
Glover & Main, Ltd.
Gwynnes, Ltd.
Lee, Howl & Co., Ltd.
Mather & Platt., Ltd.
Stone (J.) & Co., Ltd.
United Brassfounders & Engineers, Ltd.

Pumps, Rotary

Allen (W. H.), Sons & Co., Ltd.
Boving & Co., Ltd.
Brinjes & Goodwin, Ltd.
Donkin (Bryan) & Co., Ltd.
Greenwood & Batley, Ltd.
Holroyd (John) & Co., Ltd.
Mirrlees, Watson Co., Ltd.
Pulsometer Engineering Co., Ltd.
Rees Roturbo Manufacturing Co., Ltd.
United Brassfounders & Engineers, Ltd.
Vickers, Ltd.
Weir (G. and J.), Ltd.

Pumps, Semi-Rotary

Ashwell & Nesbit, Ltd.
Lee, Howl & Co., Ltd.
Stone (J.) & Co., Ltd.
United Brassfounders & Engineers, Ltd.

Pumps, Sewage & Sludge

Allen (W. H.), Sons & Co., Ltd.
Blackwell (Robert W.) & Co., Ltd.
Boving & Co., Ltd.
Davey, Paxman & Co., Ltd.
Gwynnes, Ltd.
Lee, Howl & Co., Ltd.
Manlove, Alliott & Co., Ltd.
Mather & Platt, Ltd.
Pulsometer Engineering Co., Ltd.
Rees Roturbo Manufacturing Co., Ltd.
Stone (J.) & Co., Ltd.
Yates & Thom, Ltd.

Pumps, Steam

Allen (W. H.), Sons & Co., Ltd.
Armstrongs & Main, Ltd.
Berry (Henry) & Co., Ltd.
Boving & Co., Ltd.
Clarke, Chapman & Co., Ltd.
Gwynnes, Ltd.
Holman Bros., Ltd.
Lee, Howl & Co., Ltd.
Liverpool Refrigeration Co., Ltd.
Manlove, Alliott & Co., Ltd.
North Eastern Marine Engineering Co., Ltd.
Pulsometer Engineering Co., Ltd.
Sandycroft, Ltd.
Vickers, Ltd.
Weir (G. & J.), Ltd.
Yates & Thom, Ltd.

Pumps, Turbine

Allen (W. H.), Sons & Co., Ltd.
Boving & Co., Ltd.
Greenwood & Batley, Ltd.
Gwynnes, Ltd.
Mather & Platt, Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Parsons (C. A.) & Co., Ltd.
Pulsometer Engineering Co., Ltd.
Rees Roturbo Manufacturing Co., Ltd.
Vickers, Ltd.
Weir (G. & J.), Ltd.

Pumps, Vacuum

Allen (W. H.), Sons & Co., Ltd.
Brinjes & Goodwin, Ltd.
Explosives Trades, Ltd.
Gwynnes, Ltd.
Lee, Howl & Co., Ltd.
Manlove, Alliott & Co., Ltd.
Mirrlees, Watson Co., Ltd.
Pulsometer Engineering Co., Ltd.
Rees Roturbo Manufacturing Co., Ltd.
Sandycroft, Ltd.
United Brassfounders & Engineers, Ltd.
Vacuum Brake Co., Ltd.
Vickers, Ltd.
Weir (G. & J.), Ltd.

Punches, Hand

Alldays & Onions, Ltd.
Balfour (Arthur) & Co., Ltd.
Holt & Willetts.
Turton Bros. & Matthews, Ltd.
Youngs.

Punches & Dies (Press Tools)

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Balfour (Arthur) & Co., Ltd.
Greenwood & Batley, Ltd.
Holt & Willetts.
Jonas & Colver, Ltd.
Sale (H. B.), Ltd.
Smith (John), Ltd.
Turton Bros. & Matthews, Ltd.
Wright, Bindley & Gell, Ltd.

Punching & Shearing Machines

Alldays & Onions, Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Associated British Machine Tool Makers, Ltd.
Berry (Henry) & Co., Ltd.
Carron Company.
Craven Bros. (Manchester), Ltd.
Fielding & Platt, Ltd.
Greenwood & Batley, Ltd.
Hollings & Guest, Ltd.
Holroyd (John) & Co., Ltd.
Holt & Willetts.
Wright, Bindley & Gell, Ltd.

Punching Bears

Alldays & Onions, Ltd.
Holt & Willetts.
Jonas & Colver, Ltd.
Youngs.

Purses, Leather

Brooks (J. B.) & Co., Ltd.
Finnigans, Ltd.
Norton & Gregory, Ltd.

Pyjama Suits

Bayer (Charles) & Co., Ltd.
Holloway Bros., Ltd.
McIntyre, Hogg, Marsh & Co., Ltd.
Moore, Eady & Murcott Goode, Ltd.
Vardy & Co., Ltd.

Pyridine

Brotherton & Co., Ltd.
Burt, Boulton & Haywood, Ltd.
Forbes, Abbott & Lennard, Ltd.
Gas Light & Coke Co.
Major & Co., Ltd.
May & Baker, Ltd.
South Metropolitan Gas Co.

Pyrogallol Triacetate

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Pyrometers

Alldays & Onions, Ltd.

Q

Quarrying Plant
(See "Stoneworking and Quarrying Plant.")

Quilts

Barlow & Jones, Ltd.
Dearden (Jonathan) & Co., Ltd.
Mitchell (Andrew) & Co., Ltd.

Quinine Salts

Boots Pure Drug Co., Ltd.
British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.
Whiffen & Sons, Ltd.

R

Racks, Hay, &c. *(See "Stable Fittings.")*

Racquets *(See "Sporting Goods.")*

Radial Drilling Machines
(See "Drilling Machines, Radial.")

Radiators, Electric
(See "Electric Heating and Cooking Apparatus.")

Radiators, Hot Water & Steam

Ashwell & Nesbit, Ltd.
Brightside Foundry & Engineering Co., Ltd.
Carron Company.
Matthews & Yates, Ltd.
Newton, Chambers & Co., Ltd.
Wright (John) & Eagle Range, Ltd.

Radiators, Motor Car & Aeroplane

Greenwood & Batley, Ltd.
Lamplough Radiator & Engineering Co., Ltd.
Marston (John), Ltd.
Mechans, Ltd.
White (E. T.) & Co.

Rail Benders

Berry (Henry) & Co., Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Hadfields, Ltd.
Hollings & Guest, Ltd.
Holt & Willetts.
Hudson (Robert), Ltd.
Summerson (Thomas) & Sons, Ltd.
Youngs.

Rail Fastenings & Accessories

Barrow Hematite Steel Co., Ltd.
Bayliss, Jones & Bayliss, Ltd.
Bessemer (Henry) & Co., Ltd.
Blackwell (Robert W.) & Co., Ltd.
Bolckow, Vaughan & Co., Ltd.
Bolton (Thomas) & Sons, Ltd.
Clay Cross Co., Ltd.
Cotterill (F. W.), Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Guest, Keen & Nettlefolds, Ltd.
Hadfields, Ltd.
Head, Wrightson & Co., Ltd.
Heath (Robert) & Low Moor, Ltd.
Hudson (Robert), Ltd.
Metropolitan Carriage, Wagon & Finance Co., Ltd.
North Eastern Steel Co., Ltd.
Partington Steel & Iron Co., Ltd.
Scott (Walter), Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.
Summerson (Thos.) & Sons, Ltd.

Rail Spikes *(See "Rail Fastenings, etc.")*

Railings, Cast Iron
(See "Castings, Builders'.")

Railings, Wrought
(See "Fencing and Gates, etc.")

Rails, Light Railway

Agricultural & General Engineers, Ltd.
Bain (William) & Co., Ltd.
Baldwins, Ltd.
Barrow Hematite Steel Co., Ltd.
Bessemer (Henry) & Co., Ltd.
Blackwell (Robert W.) & Co., Ltd.
Cargo Fleet Iron Co., Ltd.
Dorman, Long & Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
English Electric Co., Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Fox (Samuel) & Co., Ltd.
Hill (J. & P.).
Hudson (Robert), Ltd.
Park Gate Iron & Steel Co., Ltd.
Partington Steel & Iron Co., Ltd.
Port Talbot Steel Co., Ltd.
Redbourn Hill Iron & Coal Co., Ltd.
Tredegar Iron & Coal Co., Ltd.
Workington Iron & Steel Co., Ltd.

Rails, Railway

Allen (Edgar) & Co., Ltd.
Baldwins, Ltd.
Barrow Hematite Steel Co., Ltd.
Blackwell (Robert W.) & Co., Ltd.
Bolckow, Vaughan & Co., Ltd.
Cargo Fleet Iron Co., Ltd.
Dorman, Long & Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Fox (Samuel) & Co., Ltd.
Guest, Keen & Nettlefolds, Ltd.
Hill (J. & P.).
Hudson (Robert), Ltd.
North Eastern Steel Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Partington Steel & Iron Co., Ltd.
Port Talbot Steel Co., Ltd.
Redbourn Hill Iron & Coal Co., Ltd.
Skinningrove Iron Co., Ltd.
Steel, Peech & Tozer, Ltd.
Workington Iron & Steel Co., Ltd.

Rails, Tram

Baldwins, Ltd.
Barrow Hematite Steel Co., Ltd.
Blackwell (Robert W.) Co., Ltd.
Dorman, Long & Co., Ltd.
Fox (Samuel) & Co., Ltd.
Hill (J. & P.).
Hudson (Robert), Ltd.
Osborn (Samuel) & Co., Ltd.
Redbourn Hill Iron & Coal Co., Ltd.
Steel, Peech & Tozer, Ltd.

Railway Buffers & Buffer Stops

Allen (Edgar) & Co., Ltd.
Brockhouse (J.) & Co., Ltd.
Brown (John) & Co., Ltd.
Darlington Forge, Ltd.
Greengate & Irwell Rubber Co., Ltd.
Hadfields, Ltd.
Head, Wrightson & Co., Ltd.
Holman Bros., Ltd.
Hurst, Nelson & Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Leeds Forge Co., Ltd.
Macintosh (Chas.) & Co., Ltd.
MacLellan (P. & W.), Ltd.
Metropolitan Carriage, Wagon & Finance Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Spencer (George), Moulton & Co., Ltd.
Summerson (Thomas) & Sons, Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Turton Bros. & Matthews, Ltd.
Whessoe Foundry Co., Ltd.

Railway Carriage Electric Lighting Plant

(*See "Electric Lighting Plant, Railway Carriage."*)

Railway Carriage Fittings & Furnishings

Bell's United Asbestos Co., Ltd.
British Aluminium Co., Ltd.
Brockhouse (J.) & Co., Ltd.
Gloucester Railway Carriage & Wagon Co., Ltd.
Gresham & Craven, Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Jennings (George), Ltd.
Joseph (N. C.).
Lister & Co., Ltd.
Ludlow Bros. (1913), Ltd.
Peters (G. D.) & Co., Ltd.
Singer (J. W.) & Co., Ltd.
Stone (J.) & Co., Ltd.

Railway Carriage & Wagon-making Machinery

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Associated British Machine Tool Makers, Ltd.
Berry (Henry) & Co., Ltd.
Craven Brothers (Manchester), Ltd.
Fielding & Platt, Ltd.
Greenwood & Batley, Ltd.
Haighs (Oldham), Ltd.
Hollings & Guest, Ltd.
Holroyd (John) & Co., Ltd.

Railway Carriages & Wagons

Bristol Wagon & Carriage Works Co., Ltd.
Brush Electrical Engineering Co., Ltd.
Clayton & Shuttleworth, Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Gloucester Railway Carriage & Wagon Co., Ltd.
Head, Wrightson & Co., Ltd.
Hudson (Robert), Ltd.
Hurst, Nelson & Co., Ltd.
Kerr, Stuart & Co., Ltd.
Leeds Forge Co., Ltd.
MacLellan (P. & W.), Ltd.
Metropolitan Carriage, Wagon & Finance Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Roberts (Charles) & Co., Ltd.
Tees Side Bridge & Engineering Works, Ltd.

Railway Chairs

(*See "Rail Fastenings and Accessories."*)

Railway Signalling Apparatus

Bullers, Ltd.
Consolidated Signal Co., Ltd.
Keay (E., C. & J.), Ltd.
Ludlow Bros. (1913), Ltd.

Railway Signalling Apparatus (Electrically Operated)

Consolidated Signal Co., Ltd.
English Electric Co., Ltd.
General Electric Co., Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.

Railway Wheels

(*See "Wheels, Rail and Tram."*)

Railways (Portable) & Plant

Agricultural & General Engineers, Ltd.
Bain (William) & Co., Ltd.
Fielding & Platt, Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Hudson (Robert), Ltd.
Kerr, Stuart & Co., Ltd.
Summerson (Thomas) & Sons, Ltd.

Rainproof Garments

(*See "Waterproofs, etc."*)

Rain-water Gutterings & Fittings

(*See "Castings, Builders', etc."*)

Rakes (*See "Hand Tools, Garden."*)

Rakes, Retort & Furnace

Hardy Patent Pick Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Piggott (Thomas) & Co., Ltd.

Rams, Hydraulic (*See "Hydraulic Rams."*)

Range Finders

Barr & Stroud, Ltd.
Chance Bros. & Co., Ltd.

Ranges, Cooking (*See "Stoves, etc."*)

Rasps (*See "Files and Rasps."*)

Ratchet Braces (*See "Braces, Engineers'."*)

Ratchets (Wire Straining)

Bain (William) & Co., Ltd.
Bayliss, Jones & Bayliss, Ltd.
Rylands Bros., Ltd.

Razors

Maw (S.), Son & Sons, Ltd.
Walker & Hall, Ltd.

Razors, Safety

Explosives Trades, Ltd.
Greener (W. W.), Ltd.
Maw (S.), Son & Sons, Ltd.
Walker & Hall, Ltd.

Reamers (*See "Hand Tools, Engineers'."*)

Reapers & Binders

Ruston & Hornsby, Ltd.

Reaping Hooks & Knives
(*See "Scythes and Sickles."*)

Reels, Garden Hose (*See "Hose Reels."*)

Refining of Precious Metals

Head, Wrightson & Co., Ltd.
Johnson, Matthey & Co., Ltd.

Reflectors

British Aluminium Co., Ltd.
Bulpitt & Sons, Ltd.
Chance Bros. & Co., Ltd.
Glover & Main, Ltd.
Parsons (C. A.) & Co., Ltd.
Pilkington Bros., Ltd.
Sankey (Joseph) & Sons, Ltd.

Refractory Materials

Bell Bros., Ltd.
Bolckow, Vaughan & Co., Ltd.
Bradley & Foster, Ltd.
Brymbo Steel Co., Ltd.
Consett Iron Co., Ltd.
Cwmfelin Steel & Tinplate Co., Ltd.
Hobdell, Way & Co., Ltd.
Morgan Crucible Co., Ltd.
Pease & Partners, Ltd.
Pickford, Holland & Co., Ltd.
Vickers, Ltd.

Refrigerating Plant

Acetylene Corporation of Great Britain, Ltd.
Davey, Paxman & Co., Ltd.
Hall (J. & E.), Ltd.
Lightfoot Refrigeration Co., Ltd.
Liverpool Refrigeration Co., Ltd.
Mechans, Ltd.
Piggott (Thomas) & Co., Ltd.
Pulsometer Engineering Co., Ltd.
Ransomes & Rapier, Ltd.
Vickers, Ltd.

Refrigerators & Cooling Apparatus

Hall (J. & E.), Ltd.
Lightfoot Refrigeration Co., Ltd.
Lister (R. A.) & Co., Ltd.
Liverpool Refrigeration Co., Ltd.
Matthews & Yates, Ltd.
Mechans, Ltd.
Pulsometer Engineering Co., Ltd.
Ransomes & Rapier, Ltd.
Vickers, Ltd.

Resins

Boake (A.), Roberts & Co., Ltd.
Butler (William) & Co. (Bristol), Ltd.
Hess (Adolph) & Bros., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Thornley (Samuel), Ltd.

Resins, Medicinal

British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Resorcin

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Revolvers (*See "Fire-arms, etc."*)

Revolving Shutters (*See "Shutters."*)

Rheostats & Resistances

Canning (W.) & Co.
Electric Construction Co., Ltd.
Electro-Mechanical Brake Co., Ltd.
Ellison (George).
English Electric Co., Ltd.
General Electric Co., Ltd.
Marconis Wireless Telegraph Co., Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Vickers, Ltd.

Rhodium & Salts

Johnson, Matthey & Co., Ltd.
Mond Nickel Co., Ltd.

Rice & Rice Products

Crosse & Blackwell (Mfg. Co.), Ltd.
Nagersheth (M.) Sons.
White, Tomkins & Courage, Ltd.

Rice Machinery

Ransomes, Sims & Jefferies, Ltd.

Rice Milling Machinery

Harvey (G. A.) & Co. (London), Ltd.
Simon (Henry), Ltd.

Riddles (*See "Sieves and Riddles."*)

Rifles (*See "Fire-arms."*)

Rigging (*See "Ships' Rigging."*)

Rippers, Slaters'

Osborn (Samuel) & Co., Ltd.

Rivet Sets and Snaps

Balfour (Arthur) & Co., Ltd.
Brown (John) & Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Turton Bros. & Matthews, Ltd.

Rivets, Aluminium
Aluminium Corporation, Ltd.
Greenwood & Batley, Ltd.
Stone (J.) & Co., Ltd.

Rivets, Copper
Bolton (Thomas) & Sons, Ltd.
Explosives Trades, Ltd.
Guest, Keen & Nettlefolds, Ltd.
Muntz's Metal Co., Ltd.
Stone (J.) & Co., Ltd.

Rivets, Iron & Steel
Bayliss, Jones & Bayliss, Ltd.
Beyer, Peacock & Co., Ltd.
Cotterill (F. W.), Ltd.
Guest, Keen & Nettlefolds, Ltd.
MacLellan (P. & W.), Ltd.
Patent Shaft & Axletree Co., Ltd.

Rivets, Shoe and Wire
Explosives Trades, Ltd.

Rivetting Machines
Alldays & Onions, Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Arrol (Sir William) & Co., Ltd.
Berry (Henry) & Co., Ltd.
Fielding & Platt, Ltd.
Hollings & Guest, Ltd.
Holman Bros., Ltd.
Vulcan Foundry, Ltd.

Road Scarifiers
Clayton & Shuttleworth, Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Hardy Patent Pick Co., Ltd.
Marshall, Sons & Co., Ltd.
McLaren (J. & H.), Ltd.
Yates (John) & Co., Ltd.

Rollers, Garden
Agricultural & General Engineers, Ltd.
Carron Company.
Newton, Chambers & Co., Ltd.
Ransomes, Sims & Jefferies, Ltd.

Rollers, Haulage
(*See "Haulage Rollers and Pulleys."*)

Rollers, Steam Road
Agricultural & General Engineers, Ltd.
Clayton & Shuttleworth, Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Garrett (Richard) & Sons, Ltd.
Marshall, Sons & Co., Ltd.
McLaren (J. & H.), Ltd.
Robey & Co., Ltd.
Ruston & Hornsby, Ltd.

Rolling Mill Machinery
Brightside Foundry & Engineering Co., Ltd.
Davy Bros., Ltd.
Explosives Trades, Ltd.
Fielding & Platt, Ltd.
Greenwood & Batley, Ltd.
Head, Wrightson & Co., Ltd.
Hick, Hargreaves & Co., Ltd.
Markham & Co., Ltd.
Marsden (H. R.), Ltd.
Piggott (Thomas) & Co., Ltd.
Wild (M. B.) & Co., Ltd.
Vickers, Ltd.

Rolling Mills, Electrical Equipment of
Brightside Foundry & Engineering Co., Ltd.
Crompton & Co., Ltd.
Electric Construction Co., Ltd.
English Electric Co., Ltd.
Fielding & Platt, Ltd.
Greenwood & Batley, Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Sandycroft, Ltd.

Rolls
Darlington Forge, Ltd. (The).
Thomas (Richard) & Co., Ltd.

Rolls and Rolling Plant
Bayliss, Jones & Bayliss, Ltd.
Brightside Foundry & Engineering Co., Ltd.
Cwmfelin Steel & Tinplate Co., Ltd.
Fielding & Platt, Ltd.
Hadfields, Ltd.
Hoffmann Manufacturing Co., Ltd.
Marsden (H. R.), Ltd.
Osborn (Samuel) & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Vickers, Ltd
Wild (M. B.) & Co., Ltd.

Roofing, Aluminium
Braby (Frederick) & Co., Ltd.
British Aluminium Co., Ltd.

Roofing Felt (*See "Felt, Roofing."*)

Roofing, Iron & Steel
Armstrongs & Main, Ltd.
Arrol (Sir William) & Co., Ltd.
Bain (William) & Co., Ltd.
Bayliss, Jones & Bayliss, Ltd.
Braby (Frederick) & Co., Ltd.
Braithwaite & Co.
Clayton, Son & Co., Ltd.
Cleveland Bridge & Engineering Co
Dorman, Long & Co., Ltd.
Head, Wrightson & Co., Ltd.
Holmes (W. C.) & Co., Ltd.
Horsehay Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Keay (E., C. & J.), Ltd.
Lanarkshire Steel Co., Ltd.
Ludlow Bros. (1913), Ltd.
MacLellan (P. & W.), Ltd.
Measures Bros. (1911), Ltd.
Morton (Francis) & Co., Ltd.
Motherwell Bridge Co., Ltd.
Orr, Watt & Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Redpath, Brown & Co., Ltd.
Summers (John) & Sons, Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Westwood (Joseph) & Co., Ltd.
Whessoe Foundry Co., Ltd.
Wood (Edward) & Co., Ltd.

Rope-making Machinery
Fairbairn Lawson Combe Barbour, Ltd.

Rope, Manilla, Hemp, Flax, Jute & Sisal
Dixon & Corbett & R. S. Newall & Co., Ltd.
Excelsior Wire Rope Co., Ltd.
Fine Cotton Spinners & Doublers' Association, Ltd.
Haggie (R. Hood) & Son, Ltd.
Piggott Bros. & Co., Ltd.
Wright (John & Edwin) Co., Ltd.

Ropes, Steel

Bullivant & Co., Ltd.
Cooke (William) & Co., Ltd.
Cradock (George) & Co., Ltd.
Dixon & Corbett & R. S. Newall & Co., Ltd.
Excelsior Wire Rope Co., Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Haggie (R. Hood) & Son, Ltd.
Rylands Bros., Ltd.
Smith (Thomas & William), Ltd.
Wilkins Wire Rope Co., Ltd.
Wright (John & Edwin), Ltd.

Ropeways, Aerial

Agricultural & General Eegineers, Ltd.
Braithwaite & Co.
Bullivant & Co., Ltd.
Cradock (George), & Co., Ltd.
Haggie (R. Hood) & Son, Ltd.
Ropeways, Ltd.
Smith (Thomas & William), Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Wild (M. B.) & Co., Ltd.
Wilkins Wire Rope Co., Ltd.
Wright (John & Edwin), Ltd.

Rotary Convertors (*See "Convertors, Rotary."*)

Rubber Bags

Cow (P. B.) & Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Ingram (J. G.) & Son, Ltd.
Macintosh (Chas.) & Co., Ltd.
North British Rubber Co., Ltd.
Spencer (C. G.) & Sons, Ltd.
Vickers, Ltd.
Warne (William) & Co., Ltd.
Wood-Milne, Ltd.

Rubber Balls

Cow (P. B.) & Co., Ltd.
Greengate & Irwell Rubber Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Ingram (J. G.) & Son, Ltd.
Macintosh (Chas.) & Co., Ltd.
Slazengers, Ltd.
Warne (William) & Co., Ltd.

Rubber Bands

Cow (P. B.) & Co., Ltd.
Greengate & Irwell Rubber Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Macintosh (Chas.) & Co., Ltd.
Moseley (David) & Sons, Ltd.
North British Rubber Co., Ltd.
Setten & Durward.
Vickers, Ltd.
Warne (William) & Co., Ltd.

Rubber Beds, Pillows & Cushions (Air & Water)

Cow (P. B.) & Co., Ltd.
Greengate & Irwell Rubber Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Ingram (J. G.) & Son, Ltd.
Macintosh (Chas.) & Co., Ltd.
Moseley (David) & Sons, Ltd.
North British Rubber Co., Ltd.
Vickers, Ltd.
Warne (William) & Co., Ltd.

Rubber Cloth

Cliffe Mills Co., Ltd.
Cow (P. B.) & Co., Ltd.
Greengate & Irwell Rubber Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Ingram (J. G.) & Son, Ltd.
Macintosh (Chas.) & Co., Ltd.
Mandelberg (J.) & Co., Ltd.
Moseley (David) & Sons, Ltd.
North British Rubber Co., Ltd.
Premier Waterproof & Rubber Co., Ltd.
Vickers, Ltd.
Warne (William) & Co., Ltd.

Rubber Goods (Hard)

Cow (P. B.) & Co., Ltd.
Greengate & Irwell Rubber Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Ingram (J. G.) & Son, Ltd.
Macintosh (Chas.) & Co., Ltd.
Moseley (David) & Sons, Ltd.
North British Rubber Co., Ltd.
Premier Waterproof & Rubber Co., Ltd.
Spencer (George), Moulton & Co., Ltd.
Vickers, Ltd.
Wood-Milne, Ltd.

Rubber Goods (Mechanical)

Avon India Rubber Co., Ltd.
Bates (W. & A.), Ltd.
Beldam Packing & Rubber Co., Ltd.
Bell's United Asbestos Co., Ltd.
Cow (P. B.) & Co., Ltd.
Greengate & Irwell Rubber Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works, Co., Ltd.
Ingram (J. G.) & Son, Ltd.
Macintosh (Chas.) & Co., Ltd.
Moseley (David) & Sons, Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
North British Rubber Co., Ltd.
Premier Waterproof & Rubber Co., Ltd.
Spencer (George), Moulton & Co., Ltd.
Vickers, Ltd.
Warne (William) & Co., Ltd.

Rubber Goods (Moulded)

Avon India Rubber Co., Ltd.
Bates (W. & A.), Ltd.
Cow (P. B.) & Co., Ltd.
Greengate & Irwell Rubber Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Ingram (J. G.) & Son, Ltd.
Macintosh (Chas.) & Co., Ltd.
Moseley (David) & Sons, Ltd.
North British Rubber Co., Ltd.
Premier Waterproof & Rubber Co., Ltd.
Spencer (George), Moulton & Co., Ltd.
Vickers, Ltd.
Warne (William) & Co., Ltd.
Wood-Milne, Ltd.

Rubber Goods (Surgical)

Cow (P. B.) & Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Ingram (J. G.) & Son, Ltd.
Macintosh (Chas.) & Co., Ltd.
Maw (S.), Son & Sons, Ltd.
North British Rubber Co., Ltd.
Vickers, Ltd.
Warne (William) & Co., Ltd.

Rubber Hose (*See "Hose."*)

Rubber Matting

Avon India Rubber Co., Ltd.
Connolly (J. W. & T.), Ltd.
Cow (P. B.) & Co., Ltd.
Greengate & Irwell Rubber Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Ingram (J. G.) & Son, Ltd.
Macintosh (Chas.) & Co., Ltd.
Moseley (David) & Sons, Ltd.
North British Rubber Co., Ltd.
Spencer (George), Moulton & Co., Ltd.
Vickers, Ltd.
Warne (William) & Co., Ltd.

Rubber Mill Machinery

(*See "India-rubber, Gutta-percha and Balata Machinery."*)

Rubber Protecting Composition

International Paint & Compositions Co., Ltd.

Rubber Soles & Heels

Avon India Rubber Co., Ltd.
Cow (P. B.) & Co., Ltd.
Greengate & Irwell Rubber Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Macintosh (Chas.) & Co., Ltd.
North British Rubber Co., Ltd.
Premier Waterproof & Rubber Co., Ltd.
Spencer (George), Moulton & Co., Ltd.
Vickers, Ltd.
Warne (William) & Co., Ltd.
Wood-Milne, Ltd.

Rubber Solution

Bates (W. & A.), Ltd.
Cow (P. B.) & Co., Ltd.
Dunlop Rubber Co., Ltd.
Greengate & Irwell Rubber Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Ingram (J. G.) & Son, Ltd.
Macintosh (Chas.) & Co., Ltd.
Mandelberg (J.) & Co., Ltd.
North British Rubber Co., Ltd.
Premier Waterproof & Rubber Co., Ltd.
Spencer (George), Moulton & Co., Ltd.
United Alkali Co., Ltd.
Vickers, Ltd.
Warne (William) & Co., Ltd.
Wood-Milne, Ltd.

Rubber Sundries

Avon India Rubber Co., Ltd.
Bates (W. & A.), Ltd.
Beldam Packing & Rubber Co., Ltd.
Cow (P. B.) & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Greengate & Irwell Rubber Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Ingram (J. G.) & Son, Ltd.
Macintosh (Chas.) & Co., Ltd.
Moseley (David) & Sons, Ltd.
North British Rubber Co., Ltd.
Premier Waterproof & Rubber Co., Ltd.
Spencer (George), Moulton & Co., Ltd.
Vickers, Ltd.
Warne (William) & Co., Ltd.
Wood-Milne, Ltd.

Rubber Thread

Bates (W. & A.), Ltd.
Macintosh (Chas.) & Co., Ltd.
Moseley (David) & Sons, Ltd.
Warne (William) & Co., Ltd.

Rubber Tubing

Avon India Rubber Co., Ltd.
Bates (W. & A.), Ltd.
British Oxygen Co., Ltd.
Cow (P. B.) & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Greengate & Irwell Rubber Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Ingram (J. G.) & Son, Ltd.
Macintosh (Chas.) & Co., Ltd.
Moseley (David) & Sons, Ltd.
North British Rubber Co., Ltd.
Premier Waterproof Rubber Co., Ltd.
Spencer (George), Moulton & Co., Ltd.
Vickers, Ltd.
Warne (William) & Co., Ltd.
Wood-Milne, Ltd.

Rudders, Ships'

Laing (Sir James) & Sons, Ltd.

Rugs & Mats

Bright (John) & Bros., Ltd.
Fabricless Products, Ltd.
Firth (T. F.) & Sons, Ltd.
Lister & Co., Ltd.
Stoddard (A. F.) & Co., Ltd.

Rugs & Mats (Sheepskin & Other Skin)

Clark, Son & Morland, Ltd.

Rules, Measuring

Aircraft Manufacturing Co., Ltd.
Halden (J.) & Co., Ltd.
Hooker (Peter), Ltd.
Setten & Durward.

Runways (*See "Cableways and Runways."*)

Ruthenium & Salts

Johnson, Matthey & Co., Ltd.
Mond Nickel Co., Ltd.

S

Saccharine

Boots Pure Drug Co., Ltd.
Bush (W. J.) & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Saddlery

Harrod's, Ltd.
Hepburn, Gale & Ross, Ltd.

Saddlers' Tools (*See "Hand Tools."*)

Saddles, Cycle (*See "Cycle Accessories."*)

Safes & Vaults, Burglar & Fireproof

Chatwood Safe Co., Ltd.
Cotterill (Edwin) & Co., Ltd.
Tann (John), Ltd.

Sago & Tapioca

Crosse & Blackwell (Mfg. Co.), Ltd.

Sail Cloth (*See "Canvas, etc."*)

Sailing Ships

Fairfield Shipbuilding & Engineering Co., Ltd.
Short Bros. (Rochester & Bedford), Ltd.
White (J. Samuel) & Co., Ltd.

Sal Ammoniac (*See "Ammonium Chloride."*)

Salicin

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Salicylates

Boake (A.), Roberts & Co., Ltd.
British Drug Houses, Ltd.
British Dyestuffs Corporation, Ltd.
Bush (W. J.) & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Salicylic Aldehyde

Boake (A.), Roberts & Co., Ltd.
Bush (W. J.) & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Salol

Bush (W. J.) & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Salt

Bolckow, Vaughan & Co., Ltd.
Chance & Hunt, Ltd.
Crosse & Blackwell (Mfg. Co.), Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Salt Union, Ltd.
United Alkali Co., Ltd.

Salt Cake

British Cotton & Wool Dyers' Association, Ltd.
British Dyestuffs Corporation, Ltd.
Chance & Hunt, Ltd.
Explosives Trades, Ltd.
Spencer, Chapman & Messel, Ltd.
Staveley Coal & Iron Co., Ltd.
Summers (John) & Sons, Ltd.
United Alkali Co., Ltd.

Salts, Rochelle

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Salvage Plant

Allen (W. H.), Sons & Co., Ltd.
Thornycroft (John I.) & Co., Ltd.
Vickers, Ltd.

Salvarsan

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Sand Blast Machinery

Associated British Machine Tool Makers, Ltd.
Canning (W.) & Co.

Sandpaper (*See "Abrasives."*)

Sanitary Bins & Pans

Braby (Frederick) & Co., Ltd.
Braime (T. F.) & Co., Ltd.
Harvey (G. A.) & Co. (London), Ltd.
Ludlow Bros. (1913), Ltd.
National Galvanisers, Ltd.

Sanitary Fittings, Earthenware & Fire Clay

Doulton & Co., Ltd.
Jennings (George), Ltd.

Sanitary Fittings, Metal

Accles & Pollock, Ltd.
Carron Company.
Doulton & Co., Ltd.
Jennings (George), Ltd.
Stone (J.) & Co., Ltd.
United Brassfounders & Engineers, Ltd.

Santonin

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Sash & Casement Fasteners & Fittings
(*See "Brassfoundry" and "Ironmongery, Builders'."*)

Sashes & Casements, Metal

Armstrongs & Main, Ltd.
Braby (Frederick) & Co., Ltd.
Carron Coompany.
Crittall Manufacturing Co., Ltd.
Hope, Henry & Sons, Ltd.
Measures Bros. (1911), Ltd.
Mellowes & Co., Ltd.

Sashes & Casements (Wood)

Central Aircraft Co.
Grahame-White Co., Ltd.
Heywood (John), Ltd.
Lebus (Harris).
Remer (John) & Co., Ltd.
Vickers, Ltd.
White, Allom & Co.

Sateens

Barlow & Jones, Ltd.
Bright (John) & Bros., Ltd.
Calico Printers' Association, Ltd.
Dugdale (John) & Bros.
Gates (Ernest) & Co.
Harrow-Bunn & Butler.
Hollins Mill Co., Ltd.
Simpson & Godlee, Ltd.
Thomas (J.) & Co., Ltd.
Tootal Broadhurst, Lee Co., Ltd.
United Turkey Red Co., Ltd.
Wilkinson (John).

Sates or Sets, Smiths'
(*See "Hand Tools, Blacksmiths'."*)

Saucepans (*See "Hollow-ware."*)

Sauces

Crosse & Blackwell (Mfg. Co.), Ltd.
Maconochie Bros., Ltd.
Simpson (William) (Manchester), Ltd.

Saw Benches
(*See "Woodworking Machinery."*)

Saw Mill Machinery
(*See "Woodworking Machinery."*)

Saw Sets

Aublet (Harry) & Co., Ltd.
Kayser, Ellison & Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Wright, Bindley & Gell, Ltd.

Saw Sharpening Machinery

Associated British Machine Tool Makers, Ltd.
Aublet (Harry) & Co., Ltd.
Haighs (Oldham), Ltd.
Holroyd (John) & Co., Ltd.
Selson Engineering Co., Ltd.

Saws, Circular & Band

Allen (Edgar) & Co., Ltd.
Associated British Machine Tool Makers, Ltd.
Aublet (Harry) & Co., Ltd.
Beardshaw (J.) & Son, Ltd.
Carron Company.
Firth (Thos.) & Sons, Ltd.
Haighs (Oldham), Ltd.
Jonas & Colver, Ltd.
Kayser, Ellison & Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Vickers, Ltd.
Wright, Bindley & Gell, Ltd.

Saws, Hack & Metal Cutting

Allen (Edgar) & Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Aublet (Harry) & Co., Ltd.
Balfour (Arthur) & Co., Ltd.
Beardshaw (J.) & Son, Ltd.
Craven Bros. (Manchester), Ltd.
Firth (Thos.) & Sons, Ltd.
Holroyd (John) & Co., Ltd.
Kayser, Ellison & Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Selson Engineering Co., Ltd.
Wright, Bindley & Gell, Ltd.

Saws, Hand

Jonas & Colver, Ltd.
Kayser, Ellison & Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Wright, Bindley & Gell, Ltd.

Sawing Machinery (Metal)
(*See "Metal Band Sawing Machines" and "Metal Sawing Machines."*)

Scale Preparations

British Drug Houses, Ltd.

Scales (*See "Weighing Machines, etc." and "Rules, Measuring."*)

Scarlet Red

Berger (Lewis) & Sons, Ltd.
May & Baker, Ltd.

Scarves, Mufflers & Shawls

Brough, Nicholson & Hall, Ltd.
Buckler (William) & Co., Ltd.
Fabricless Products, Ltd.
Hearth (James) & Co.
Moore, Eady & Kingscott Goode, Ltd.
Neckwear, Ltd.
Plant (H. W.) & Co., Ltd.
Simpson & Godlee, Ltd.
Tootal Broadhurst, Lee Co., Ltd.
United Turkey Red Co., Ltd.
Wardle & Davenport, Ltd.

Scissors

Greener (W. W.), Ltd.

Sconces, Piano (*See "Brassfoundry."*)

Scourers

Austin (Charles E.) & Sons, Ltd.
Barlow & Jones, Ltd.

Scrap Iron & Steel

Batchelor, Robinson & Co., Ltd.
Bolckow, Vaughan & Co.
Braby (Frederick) & Co., Ltd.
Dorman, Long & Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Guest, Keen & Nettlefolds, Ltd.
Laing (Sir James) & Sons, Ltd.
MacLellan (P. & W.), Ltd.
Tees Side Bridge & Engineering Works, Ltd.

Scrapers, Boiler Tube

Vickers, Ltd.

Scrapers, Door

Carron Company.
Kayser, Ellison & Co., Ltd.
Ludlow Bros. (1913), Ltd.

Scrapers, Ship

Kayser, Ellison & Co., Ltd.
Osborn (Samuel) & Co., Ltd.

Scrapers, Woodworkers' & Paperhangers'
(*See "Hand Tools."*)

Screens, Gravel, &c.

Boby (Robert), Ltd.
Hadfields, Ltd.
Hardy Patent Pick Co., Ltd.
Harvey (G. A.) & Co. (London), Ltd.
Head, Wrightson & Co., Ltd.
Ludlow Bros. (1913), Ltd.
Stewarts & Lloyds, Ltd.

Screens, Window (*See "Blinds."*)

Screening & Sifting Machinery
(*See "Crushing and Screening Plant."*)

Screw Bits (*See "Bits."*)

Screw Cutting Tools (*See "Stocks and Dies."*)

Screwdrivers

Kayser, Ellison & Co., Ltd.
Terry (Herbert) & Sons, Ltd.

Screw Hammers
(*See "Spanners and Wrenches."*)

Screwing Machines & Tackle

Alldays & Onions, Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Associated British Machine Tool Makers, Ltd.
Greenwood & Batley, Ltd.
Holroyd (John) & Co., Ltd.

Screws (Metal), Brass

Brockhouse (J.) & Co., Ltd.
Davis & Timmins, Ltd.
Greener (W. W.), Ltd.
Guest, Keen & Nettlefolds, Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
Pugh (Charles H.), Ltd.
Stone (J.) & Co., Ltd.
Suckling, Ltd.
United Brassfounders & Engineers, Ltd.
Vickers, Ltd.
Warne, Wright & Rowland, Ltd.

Screws (Metal), Steel

Brockhouse (J.) & Co., Ltd.
Cotterill (F. W.), Ltd.
Davis & Timmins, Ltd.
Greener (W. W.), Ltd.
Guest, Keen & Nettlefolds, Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
Pugh (Charles H.), Ltd.
Raleigh Cycle Co., Ltd.
Vickers, Ltd.
Warne, Wright & Rowland, Ltd.

Screws (Wood), Brass and Steel

Guest, Keen & Nettlefolds, Ltd.

Sculptors' Tools (*See "Hand Tools, Masons'."*)

Scythe Sheaths (*See "Handles for Tools."*)

Scythe Stones

Universal Grinding Wheel Co., Ltd.

Scythes & Sickles

Kayser, Ellison & Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Sanderson Bros. & Newbould, Ltd.

Sealing Wax (*See "Wax, Sealing."*)

Seaplanes

Bath Aircraft, Ltd.
Beardmore (William) & Co., Ltd.
Bristol Aeroplane Co., Ltd.
Central Aircraft Co.
Fairfield Shipbuilding & Engineering Co., Ltd.
Martinsyde, Ltd.
Roe (A. V.) & Co., Ltd.
Short Bros. (Rochester & Bedford), Ltd.
Vickers, Ltd.

Searchlight Projectors, Acetylene & Oxy-Acetylene

Acetylene Corporation of Great Britain, Ltd.
Chance Bros. & Co., Ltd.
Johnson & Phillips, Ltd.

Searchlight Projectors, Electrical

Brinjes & Goodwin, Ltd.
Chance Bros. & Co., Ltd.
Clarke, Chapman & Co., Ltd.
Crompton & Co., Ltd.
General Electric Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Parsons (C. A.) & Co., Ltd.
Smith (S.) & Sons (Motor Accessories), Ltd.

Seed-Crushing Machinery

Allen (Edgar) & Co., Ltd.
Greenwood & Batley, Ltd.
Hollings & Guest, Ltd.
Manlove, Alliott & Co., Ltd.
Rose, Downs & Thompson, Ltd.

Seeds

Evans, Sons, Lescher & Webb, Ltd.
Spiller's Milling & Associated Industries, Ltd.

Selenium Salts

Johnson, Matthey & Co., Ltd.

Seltzogenes

Boots Pure Drug Co., Ltd.

Semaphores

Consolidated Signal Co., Ltd.
Cooke (T.) & Sons, Ltd.
Mechans, Ltd.

Separators, Cream
(*See "Dairy Machinery."*)

Separators, Oil

Ashwell & Nesbit, Ltd.
Bridge (David) & Co., Ltd.
Brightside Foundry & Engineering Co., Ltd.
Brinjes & Goodwin, Ltd.
Greenwood & Batley, Ltd.
Holroyd (John) & Co., Ltd.
Manlove, Alliott & Co., Ltd.
North Eastern Marine Engineering Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Wakefield (C. C.) & Co., Ltd.

Separators, Ore

Allen (Edgar) & Co., Ltd.
Hardy Patent Pick Co., Ltd.
Head, Wrightson & Co., Ltd.
Sandycroft, Ltd.

Separators, Steam

Ashwell & Nesbit, Ltd.
Blakeborough (J.) & Sons, Ltd.
Brightside Foundry & Engineering Co., Ltd.
Hopkinson (J.) & Co., Ltd.
Mechans, Ltd.
Piggott (Thomas) & Co., Ltd.
Stewarts & Lloyds, Ltd.
United Brassfounders & Engineers, Ltd.

Serges (*See "Woollen Goods."*)

Set Squares (*See "Squares."*)

Sewage Works Plant

Blakeborough (J.) & Sons, Ltd.
Fielding & Platt, Ltd.
Gwynnes, Ltd.
Holmes (W. C.) & Co., Ltd.
Jennings (George), Ltd.
Manlove, Alliott & Co., Ltd.
Mechans, Ltd.
Stone (J.) & Co., Ltd.

Sewing Machines

Vickers, Ltd.

Shackles, Screwed (*See "Chains."*)

Shafting & Gearing

Armstrong (Sir W. G.), Whitworth & Co., Ltd
Aublet (Harry) & Co., Ltd.
Beardmore (William) & Co., Ltd.
Bridge (David) & Co., Ltd.
Darlington Forge, Ltd.
Fairbairn Lawson Combe Barbour, Ltd.
Gilbertson (W.) & Co., Ltd.
Hardy Patent Pick Co., Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Holroyd (John) & Co., Ltd.
Jessop (William) & Sons, Ltd.
Kirkstall Forge, Ltd.
Markham & Co., Ltd.
North Eastern Marine Engineering Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Parsons Marine Steam Turbine Co., Ltd.
Sandycroft, Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.
Unbreakable Pulley & Millgearing Co., Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.
Wigglesworth (Frank) & Co., Ltd.
Wild (M. B.) & Co., Ltd.
Yates & Thom, Ltd.

Shafting, Flexible

Cooper (William) & Nephews.
Terry (Herbert) & Sons, Ltd.

Shallow Draught Vessels

Fairfield Shipbuilding & Engineering Co., Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Seamless Steel Boat Co., Ltd.
Short Bros. (Rochester & Bedford), Ltd.
Thornycroft (John I.) & Co., Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.
Yarrow & Co., Ltd.

Shaping Machines (Metal)

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Associated British Machine Tool Makers, Ltd.
Beyer, Peacock & Co., Ltd.
Butler Machine Tool Co., Ltd.
Craven Bros. (Manchester), Ltd.
Drummond Bros., Ltd.
Greenwood & Batley, Ltd.
Holroyd (John) & Co., Ltd.
Selson Engineering Co., Ltd.

Sharpening Machines
(*See "Grinding Machines for Tools."*)

Shaves & Shave Hooks (*See "Hand Tools."*)

Shawls (*See "Scarves, Mufflers and Shawls."*)

Shearing Machines (Metal)

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Associated British Machine Tool Makers, Ltd.
Berry (Henry) & Co., Ltd.
Craven Bros. (Manchester), Ltd.
Fielding & Platt, Ltd.
Greenwood & Batley, Ltd.
Hollings & Guest, Ltd.

Shears & Snips (Hand), Metal Cutting

Kayser, Ellison & Co., Ltd.
Osborn (Samuel) & Co., Ltd.

Shears, Garden (*See "Hand Tools, Garden."*)

Shears, Guillotine

Accles & Pollock, Ltd.
Sanderson Bros. & Newbould, Ltd.

Shears, Sheep

Osborn (Samuel) & Co., Ltd.

Sheep Dip

Baird (William) & Nephews.
Brotherton & Co., Ltd.
Burt, Boulton & Haywood, Ltd.
Cooper (William) & Nephews.
Gas Light & Coke Co.
International Paint & Compositions Co., Ltd.
Lawes' Chemical Manure Co., Ltd.
Major & Co., Ltd.
Newton, Chambers & Co., Ltd.
Pearson (William), Ltd.
Snowdon, Sons & Co., Ltd.
United Alkali Co., Ltd.

Sheep-shearing Machines

Cooper (William) & Nephews.
Lister (R. A.) & Co., Ltd.
Wolseley Sheep Shearing Machine Co., Ltd.

Shellac

Evans, Sons, Lescher & Webb, Ltd.
Thornley (Samuel), Ltd.

Ship-building

Beardmore (William) & Co., Ltd.
Brown (John) & Co., Ltd.
Fairfield Shipbuilding & Engineering Co., Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Hill (Charles) & Sons, Ltd.
Hill (J. & P.).

Ship-building—*continued.*

Laing (Sir James) & Sons, Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Scott's Shipbuilding & Engineering Co., Ltd.
Thompson (Joseph L.) & Sons, Ltd.
Thornycroft (John I.) & Co., Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.

Ship Chandlery

Braime (T. F.) & Co., Ltd.
Piggott Bros. & Co., Ltd.
Stott (James), Ltd.
Wright (John & Edwin), Ltd.

Ship Installations (Electric)

Allen (W. H.), Sons & Co., Ltd.
Clarke, Chapman & Co., Ltd.
English Electric Co., Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Parsons (C. A.) & Co., Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.

Ship Repairing

Beardmore (William) & Co., Ltd.
Brown (John) & Co., Ltd.
Fairfield Shipbuilding & Engineering Co., Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Hill (Charles) & Sons, Ltd.
Laing (Sir James) & Sons, Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Thompson (Joseph L.) & Sons, Ltd.
Thornycroft (John I.) & Co., Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.

Shipping Tackle, Metal

Brockhouse (J.) & Co., Ltd.
Stone (J.) & Co., Ltd.

Ships' Cables, Chain

(*See "Chain Cable, Ships'."*)

Ships' Casements & Port Lights

Bulpitt & Sons, Ltd.
Carron Company.
Chance Bros. & Co., Ltd.
Kent (George), Ltd.
Laing (Sir James) & Sons, Ltd.
Pilkington Bros., Ltd.
Stone (J.) & Co., Ltd.
Vickers, Ltd.

Ships' Davits "

(*See "Hoists, Boat."*)

Ships' Emergency Lighting Plant

Allen (W. H.), Sons & Co., Ltd.
Chance Bros. & Co., Ltd.
Clarke, Chapman & Co., Ltd.
Thornycroft (John I.) & Co., Ltd.
White (J. Samuel) & Co., Ltd.

Ships' Evaporating & Distilling Plant

Weir (G. & J.), Ltd.

Ships' Hawsers, Steel Wire

Bullivant & Co., Ltd.
Cooke (William) & Co., Ltd.
Dixon & Corbett & R. S. Newall & Co., Ltd.
Haggie (R. Hood) & Son, Ltd.
Rylands Bros., Ltd.
Smith (Thomas & William), Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Wilkin's Wire Rope Co., Ltd.
Wright (John & Edwin), Ltd.

Ships' Masts & Derrick Posts

Burt, Boulton & Haywood, Ltd.
Cleveland Bridge & Engineering Co., Ltd.
Hill (Charles) & Sons, Ltd.
Mechans, Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Spencer (John), Ltd.
Stewarts & Lloyds, Ltd.
Tees Side Bridge & Engineering Works, Ltd.
White (J. Samuel) & Co., Ltd.

Ships' Plates & Angles

Beardmore (William) & Co., Ltd.
Bolckow, Vaughan & Co., Ltd.
Braby (Frederick) & Co., Ltd.
Cargo Fleet Iron Co., Ltd.
Consett Iron Co., Ltd.
Dorman, Long & Co., Ltd.
Guest, Keen & Nettlefolds, Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Spencer (John) & Sons, Ltd.
Stewarts & Lloyds, Ltd.
Vickers, Ltd.

Ships' Rigging

Bullivant & Co., Ltd.
Cooke (William) & Co., Ltd.
Dixon & Corbett & R. S. Newall & Co., Ltd.
Haggie (R. Hood) & Son, Ltd.
Rylands Bros., Ltd.
Wilkin's Wire Rope Co., Ltd.
Wright (John & Edwin), Ltd.

Ships' Water-tight Bulkhead Doors

Blakeborough (J.) & Sons, Ltd.
Mechans, Ltd.
Piggott (Thomas) & Co., Ltd.
Stone (J.) & Co., Ltd.
Vickers, Ltd.
Westwood (Joseph) & Co., Ltd.
White (J. Samuel) & Co., Ltd.

Shirtings

(*See under "Cotton," "Woollen," etc.*)

Shirts, Linen

Holloway Bros., Ltd.

Shirts, White & Fancy

Holloway Bros., Ltd.
McIntyre, Hogg, Marsh & Co., Ltd.

Shirts, Woollen

Holloway Bros., Ltd.
McIntyre, Hogg, Marsh & Co., Ltd.

Shoe Horns (Horn, &c.)

Aberdeen Comb Works Co., Ltd.
Faire Bros. & Co., Ltd.

Shoe Horns (Metal)

Faire Bros. & Co., Ltd.
Joseph (N. C.).
Smith (John), Ltd.

Shoemakers' Tools

(*See "Hand Tools."*)

Shoes

(*See "Boots and Shoes."*)

Shoes & Dies

Andrew (Jno. Hy.) & Co., Ltd.
Bessemer (Henry) & Co., Ltd.
Brown Bayley's Steel Works, Ltd.
Firth (Thos.) & Sons, Ltd.
Hadfields, Ltd.
Holman Bros., Ltd.
Jessop (William) & Sons, Ltd.
Leeds Forge Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Sandycroft, Ltd.
Spencer (John) & Sons, Ltd.

Shoes, Brake

Carron Company.
Hadfields, Ltd.
Hurst, Nelson & Co., Ltd.
Metropolitan Carriage, Wagon & Finance Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Summerson (Thomas) & Sons, Ltd.

Shoes, Horse & Mule *(See "Horse Shoes.")*

Shop Fittings

Central Aircraft Co.
Harris & Sheldon, Ltd.
Heywood (John), Ltd.
Maw (S.), Son & Sons, Ltd.
Piggott Bros. & Co., Ltd.

Shovels *(See "Spades and Shovels.")*

Show Cases

Birch (William), Ltd.
Central Aircraft Co.
Grahame-White Co., Ltd.
Harris & Sheldon, Ltd.
Heywood (John), Ltd.
Lebus (Harris).
Maw (S.), Son & Sons, Ltd.
Piggott Bros. & Co., Ltd.

Shutters, Revolving

Westwood (Joseph) & Co., Ltd.

Shutters, Weir

Blakeborough (J.) & Sons, Ltd.
Glenfield & Kennedy, Ltd.
Ransomes & Rapier, Ltd.

Shuttles

Wilson Bros. Bobbin Co., Ltd.

Sickles *(See "Scythes and Sickles.")*

Sieves & Riddles

Greening (N.) & Sons, Ltd.
Ludlow Bros. (1913), Ltd.
Rylands Bros., Ltd.

Signalling Apparatus

Bullers, Ltd.
Bulpitt & Sons, Ltd.
Chance Bros. & Co., Ltd.
Consolidated Signal Co., Ltd.
Mechans, Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.
Sterling Telephone & Electric Co., Ltd.

Signals, Railway
(See "Railway Signalling Apparatus.")

Signs, Advertising, Illuminated

Edison Swan Electric Co., Ltd.
Heywood (John), Ltd.
General Electric Co., Ltd.
Piggott Bros. & Co., Ltd.
Pilkington Bros., Ltd.

Signs & Tablets, Advertising (Enamelled)

Glover & Main, Ltd.
Ludlow Bros. (1913), Ltd.

Signs, Tablets & Novelties (Metal, Decorated)

Acme Stopper & Box Co., Ltd.
Barringer, Wallis & Manners, Ltd.
Setten & Durward.
Singer (J. W.) & Sons, Ltd.
Smith (John), Ltd.
Terry (Herbert) & Sons, Ltd.

Silica & Fused Quartz Ware

Thermal Syndicate, Ltd.

Silk, Artificial

British Cellulose & Chemical Manufacturing Co.,Ltd.
Calico Printers' Association, Ltd.
Courtauld, Ltd.
Emsley (J.) & Co., Ltd.
Halliday (John) & Sons.
Tootal Broadhurst, Lee Co., Ltd.
United Turkey Red Co., Ltd.
Walker Bros.

Silk, Astrachan

Walker Bros.

Silk Fabrics

Calico Printers' Association, Ltd.
Drey, Simpson & Co., Ltd.
Emsley (J.) & Co., Ltd.
Grout & Co., Ltd.
Lister & Co., Ltd.
Neckwear, Ltd.
Tootal Broadhurst, Lee Co., Ltd.
Walker Bros.
Wolsey, Ltd.

Silk Gauzes, Tulles, Veilings, &c.

Grout & Co., Ltd.

Silk Linings

Calico Printers' Association, Ltd.
Emsley (J.) & Co., Ltd.
Lister & Co., Ltd.
Tootal Broadhurst, Lee Co., Ltd.
Walker Bros.

Silk and Wool Mixed Fabrics

Calico Printers' Association, Ltd.
Drey, Simpson & Co., Ltd.
Emsley (J.) & Co., Ltd.
Grout & Co., Ltd.
Neckwear, Ltd.
Salt (Sir Titus), Bart., Sons & Co., Ltd.
Tootal Broadhurst, Lee Co., Ltd.
Walker Bros.

Silk, Sewing & Embroidery

Brough, Nicholson & Hall, Ltd.
Lister & Co., Ltd.
Wardle & Davenport, Ltd.

Silk Yarns (*See "Yarns."*)

Silver

Burma Corporation, Ltd.
Dennison Watch Case Co., Ltd.
Johnson, Matthey & Co., Ltd.
Mond Nickel Co., Ltd.

Silver Nitrate

Johnson, Matthey & Co., Ltd.
May & Baker, Ltd.

Silver Products (Chemical)

Canning (W.) & Co.
Evans, Sons, Lescher & Webb, Ltd.
Johnson, Matthey & Co., Ltd.
May & Baker, Ltd.

Silver-ware, Sterling & Plated

Barker Bros. (Silversmiths), Ltd.
Collyer (John) & Co., Ltd.
Garrard & Co., Ltd.
Pepper (Arthur J.) & Co., Ltd.
Suckling, Ltd.
Walker & Hall, Ltd.
Wilmot Manufacturing Co.

Sink Baskets (*See "Hollow-ware."*)

Sink Traps

Carron Company.
Jennings (George), Ltd.

Sinks, Fire Clay

Jennings (George), Ltd.

Sinks, Metal (*See "Enamelled Ware."*)

Sites for Works & Factories

Rowbotham (Thomas).
Trafford Park Estates, Ltd.

Size

Evans, Sons, Lescher & Webb, Ltd.
Rose (Sir W. A.) & Co., Ltd.
Snowdon, Sons & Co., Ltd.

Skewers (*See "Wire Goods."*)

Skins (Sheep, etc.), Dressed & Tanned

Clark, Son & Morland, Ltd.
Turney Bros., Ltd.

Skips, Tipping

Bain (William) & Co., Ltd.
Bullivant & Co., Ltd.
Head, Wrightson & Co., Ltd.
Holman Bros., Ltd.
Hudson (Robert), Ltd.
Ludlow Bros. (1913), Ltd.
Mechans, Ltd.
Sandycroft, Ltd.
Stothert & Pitt, Ltd.
Westwood (Joseph) & Co., Ltd.
Wood (Edward) & Co., Ltd.

Skylight Openers (*See "Fanlight Gearing."*)

Skylights (*See "Sashes and Casements."*)

Slag

Bolckow, Vaughan & Co., Ltd.
Clay Cross Co., Ltd.
Cochrane & Co. (Woodside), Ltd.
Dorman, Long & Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Newton, Chambers & Co., Ltd.
North Eastern Steel Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Sheepbridge Coal & Iron Co., Ltd.

Slates, Asbestos

Bell's United Asbestos Co., Ltd.
Hobdell, Way & Co., Ltd.
Turner Bros. Asbestos Co., Ltd.

Sleepers, Cast Iron & Steel

Armstrongs & Main, Ltd.
Bain (William) & Co., Ltd.
Bolckow, Vaughan & Co., Ltd.
Braithwaite & Co.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Guest, Keen & Nettlefolds, Ltd.
Hudson (Robert), Ltd.
Ludlow Bros. (1913), Ltd.
Mechans, Ltd.
Motherwell Bridge Co., Ltd.
North Eastern Steel Co., Ltd.
Stanton Ironworks Co., Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Westwood (Joseph) & Co., Ltd.

Sleepers, Wooden

Burt, Boulton & Haywood, Ltd.
Calders, Ltd.
Remer (John) & Co., Ltd.

Slide Rules

Halden (J.) & Co., Ltd.
Hall (B. J.) & Co., Ltd.

Sliding Door Gearing

Braithwaite & Co.
Mechans, Ltd.

Slings, Chain

Holt & Willetts.
Youngs.

Slippers (*See "Boots, etc."*)

Slipway Plant

Armstrongs & Main, Ltd.
Braithwaite & Co.
Bullivant & Co., Ltd.
Clarke, Chapman & Co., Ltd.
Fielding & Platt, Ltd.
Holt & Willetts.
Horseley Bridge & Engineering Co., Ltd.

Slotting Machines (Metal)

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Associated British Machine Tool Makers, Ltd.
Beyer, Peacock & Co., Ltd.
Butler Machine Tool Co., Ltd.
Craven Bros. (Manchester), Ltd.
Greenwood & Batley, Ltd.
Holroyd (John) & Co., Ltd.
Selson Engineering Co., Ltd.

Slop Pails (*See "Hollow-ware."*)

Sluice Gates
(*See "Gates, Lock, Sluice or Dock."*)

Small Arms Machinery
Associated British Machine Tool Makers, Ltd.
Greenwood & Batley, Ltd.
Holroyd (John) & Co., Ltd.

Smelting & Refinery Plant
(*See "Metallurgical Plant."*)

Smoke Consuming Apparatus
Matthews & Yates, Ltd.

Smoke Stacks
(*See "Chimneys and Smoke Stacks, Steel."*)

Snap Fasteners for Clothing, Motor Covers, &c.
Edkins (Charles) & Sons, Ltd.
Mountford (Frederick) (Birmingham), Ltd.
Newey Bros., Ltd.
Smith (John), Ltd.

Snips (*See "Shears."*)

Soap
Bibby (J.) & Sons, Ltd.
Crosfield (Joseph) & Sons, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Explosives Trades, Ltd.
Hess (Adolph) & Bros., Ltd.
Lever Bros., Ltd.
Major & Co., Ltd.
Pearson (William), Ltd.
Silcock (R.) & Sons, Ltd.
United Turkey Red Co., Ltd.
Watson (Joseph) & Sons, Ltd.

Soap-making Machinery
Brinjes & Goodwin, Ltd.
Greenwood & Batley, Ltd.

Soap Powder
Boake (A.), Roberts & Co., Ltd.
Pearson (William), Ltd.
United Alkali Co., Ltd.
Watson (Joseph) & Sons, Ltd.

Soap, Soft
Hess (A.) & Bros., Ltd.
Major & Co., Ltd.
Pearson (William), Ltd.
United Alkali Co., Ltd.

Socks (*See "Hosiery."*)

Soda Ash
Brunner, Mond & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
United Alkali Co., Ltd.

Soda, Caustic
Brunner, Mond & Co., Ltd.
Castner-Kellner Alkali Co., Ltd.
Chance & Hunt, Ltd.
Crosfield (Joseph) & Sons, Ltd.
Electro-Bleach & By-Products, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Explosives Trades, Ltd.
May & Baker, Ltd.
Salt Union, Ltd.
United Alkali Co., Ltd.

Soda Chloride
Chance & Hunt, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
Salt Union, Ltd.
United Alkali Co., Ltd.

Soda Crystals
Boake (A.), Roberts & Co., Ltd.
Brunner, Mond & Co., Ltd.
Chance & Hunt, Ltd.
Electro-Bleach & By-Products, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Leitch (John W.) & Co.
United Alkali Co., Ltd.

Soda Water (*See "Aerated & Mineral Waters."*)

Sodium Acetate
Boake (A.), Roberts & Co., Ltd.
British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Sodium Arseniate
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Sodium Bicarbonate
Brunner, Mond & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Sodium Bichromate
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Sodium Bisulphite
Boake (A.), Roberts & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Lye (T.) & Sons.
May & Baker, Ltd.

Sodium Cacodylate
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Sodium Chloride
British Drug Houses, Ltd.
Chance & Hunt, Ltd.
Electro-Bleach & By-Products, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Sodium Cyanide
Evans, Sons, Lescher & Webb, Ltd.
Gas Light & Coke Co.
May & Baker, Ltd.

Sodium Ferro-cyanide
Evans, Sons, Lescher & Webb, Ltd.
Gas Light & Coke Co.
May & Baker, Ltd.

Sodium Formaldehyde Sulphoxalate
Brotherton & Co., Ltd.

For any articles not listed, write to the appropriate Trade Association (pp. 39-78) or

Sodium Hydrosulphite
Boake (A.), Roberts & Co., Ltd.
Brotherton & Co., Ltd.
Electro-Bleach & By-Products, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Sodium Hypochlorite
Castner-Kellner Alkali Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Sodium Hyposulphite
British Dyestuffs Corporation, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Sodium Manganate
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Sodium Metallic
Castner-Kellner Alkali Co., Ltd.
May & Baker, Ltd.

Sodium Methylarsenate
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Sodium Perborate
Castner-Kellner Alkali Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Lye (T.) & Sons.
May & Baker, Ltd.

Sodium Percarbonate
Evans, Sons, Lescher & Webb, Ltd.

Sodium Peroxide
Castner-Kellner Alkali Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Sodium Pyrophosphate
Lye (T.) & Sons.
May & Baker, Ltd.

Sodium Salicylate
Boake (A.), Roberts & Co., Ltd.
British Drug Houses, Ltd.
British Dyestuffs Corporation, Ltd.
Bush (W. J.) & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Sodium Salts
Boake (A.), Roberts & Co., Ltd.
British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Sodium Silicate
Crosfield (Joseph) & Sons, Ltd.
Gossage (Wm.) & Son, Ltd.
May & Baker, Ltd.

Sodium Stannate
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Sodium Sulphate
Boake (A.), Roberts & Co., Ltd.
Boots Pure Drug Co., Ltd.
British Cotton & Wool Dyers' Association, Ltd.
British Drug Houses, Ltd.
Chance & Hunt, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Explosives Trades, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.
Spencer, Chapman & Messel, Ltd.
Summers (John) & Sons, Ltd.
United Alkali Co., Ltd.

Sodium Sulphide
Chance & Hunt, Ltd.
May & Baker, Ltd.
South Metropolitan Gas Co.
United Alkali Co., Ltd.

Sodium Sulphite
Boake (A.), Roberts & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Lye (T.) & Sons.
May & Baker, Ltd.
United Alkali Co., Ltd.

Solder
Batchelor, Robinson & Co., Ltd.
Bolton (Thomas) & Sons, Ltd.
Braby (Frederick) & Co., Ltd.
Harvey (G. A.) & Co. (London), Ltd.
Tayler (D. F.) & Co., Ltd.

Soldering Tools & Sets
Brinjes & Goodwin, Ltd.

Solenoids
Ellison (George).
General Electric Co., Ltd.
Johnson & Phillips, Ltd.
Vandervell (C. A.) & Co., Ltd.
Vickers, Ltd.

Soups, Canned
Crosse & Blackwell (Mfg. Co.), Ltd.
Maconochie Bros., Ltd.

Soups, Desiccated, & Soup Powders
Crosse & Blackwell (Mfg. Co.), Ltd.
Watford Manufacturing Co., Ltd.

Spades & Shovels
Aircraft Manufacturing Co., Ltd.
Alldays & Onions, Ltd.
Andrew (Jno. Hy.) & Co., Ltd.
Hadfields, Ltd.
Hardy Patent Pick Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Sankey (Joseph) & Sons, Ltd.
Yates (John) & Co., Ltd.

Spanners & Wrenches
Abingdon Works, Ltd.
Alldays & Onions, Ltd.
Brockhouse (J.) & Co., Ltd.
Cotterill (F. W.), Ltd.
Hardy Patent Pick Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.
Stewarts & Lloyds, Ltd.
Terry (Herbert) & Sons, Ltd.

Spanners, Tubular, Box
Accles & Pollock, Ltd.

Sparking Plugs
Apollo Plug Manufacturing Co., Ltd.
Benton & Stone, Ltd.
Bullers, Ltd.
General Electric Co., Ltd.
Mountford (Frederick) Birmingham), Ltd.
Robinhood Engineering Works, Ltd.
Smith (S.) & Sons (Motor Accessories), Ltd
Suckling, Ltd.

Speaking Tube Fittings
Bulpitt & Sons, Ltd.
General Electric Co., Ltd.
Mechans, Ltd.

Spectacles
(*See "Eyeglasses and Magnifying Glasses."*)

Speed Indicators
Smith (John), Ltd.
Smith (S.) & Sons (Motor Accessories), Ltd.

Spelter
Braby (Frederick) & Co., Ltd.
Dillwyn & Co., Ltd.
English Crown Spelter Co., Ltd.
Lysaght (John), Ltd.
New Delaville Spelter Co., Ltd.
Stewarts & Lloyds, Ltd.
Vivian & Sons, Ltd.

Spices
Crosse & Blackwell (Mfg. Co.), Ltd.
Maconochie Bros., Ltd.
Nagersheth (M.) Sons.

Spikes (*See "Nails."*)

Spinning Machinery
(*See "Textile Machinery."*)

Spinning Machinery, Flax, Hemp & Jute
Fairbairn Lawson Combe Barbour, Ltd.

Spirit Stoves
Bulpitt & Sons, Ltd.
Explosives Trades, Ltd

Split Rings
Buttons, Ltd.
Mountford (Frederick) (Birmingham), Ltd.
Newey Bros., Ltd.
Setten & Durward.
Smith (John), Ltd.
Terry (Herbert) & Sons, Ltd.

Spoke Shaves
(*See "Hand Tools, Carpenters'."*)

Sponge Cloths
Austin (Charles E.) & Sons, Ltd.
Barlow & Jones, Ltd.
Grane Manufacturing Co., Ltd.
Hoyle (Joshua) & Sons, Ltd.
Morgan, Crossley & Co., Ltd

Sponges
Evans, Sons, Lescher & Webb, Ltd.
Maw (S.), Son & Sons, Ltd.

Spoons & Forks (*See "Silver-ware" and "Nickel-plated Ware."*)

Sporting Goods
Bates (W. & A.), Ltd.
Cow (P. B.) & Co., Ltd.
Finnigans, Ltd.
Greener (W. W.), Ltd.
Ingram (J. G.) & Son, Ltd.
Moseley (David) & Sons, Ltd.
Piggott Bros. & Co., Ltd.
Slazengers, Ltd.
Terry (Herbert) & Sons, Ltd.
Wolsey, Ltd.

Spraying Machines & Appliances
Benton & Stone, Ltd.
Cooper (William) & Nephews.
United Brassfounders & Engineers, Ltd.

Spraying Materials
Cooper (William) & Nephews.
Lawes' Chemical Manure Co., Ltd.
Mond Nickel Co., Ltd.
Snowdon, Sons & Co., Ltd.

Spring Hooks
Smith (John), Ltd.
Spencer (John) & Sons, Ltd.

Springs, Bed & Upholstery
Brockhouse (J.) & Co., Ltd.

Springs, Door (*See "Door Springs."*)

Springs (Heavy) Spiral, Volute, &c.
Brown Bayley's Steel Works, Ltd.
Brown (John) & Co., Ltd.
Fox (Samuel) & Co., Ltd.
Hadfields, Ltd.
Spencer (John) & Sons, Ltd.
Turton Bros. & Matthews, Ltd.
Vickers, Ltd.
Willford & Co., Ltd.

Springs, Laminated
Andrew (Jno. Hy.) & Co., Ltd.
Bessemer (Henry) & Co., Ltd.
Brockhouse (J.) & Co., Ltd.
Brown Bayley's Steel Works, Ltd.
Brown (John) & Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Fox (Samuel) & Co., Ltd.
Hadfields, Ltd.
North British Locomotive Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Roberts (Charles) & Co., Ltd.
Spencer (George), Moulton & Co., Ltd.
Spencer (John) & Sons, Ltd.
Steel, Peech & Tozer, Ltd.
Vickers, Ltd.
Willford & Co., Ltd.

Springs, Various
Brockhouse (J.) & Co., Ltd.
Brown Bayley's Steel Works, Ltd.
Brown (John) & Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Fox (Samuel) & Co., Ltd.
Greener (W. W.), Ltd.
Hadfields, Ltd.
Mitchell (Wm.) (Pens), Ltd.

Ssrings, Various—*continued.*

Mountford (Frederick) Birmingham), Ltd.
Osborn (Samuel) & Co., Ltd.
Spencer (George), Moulton & Co., Ltd.
Spencer (John) & Sons, Ltd.
Terry (Herbert) & Sons, Ltd.
Turton Bros. & Matthews, Ltd.
Vickers, Ltd.

Sprinklers, Automatic Fire

(*See "Fire Extinguishers, Automatic."*)

Sprinklers, Lawn

Benton & Stone, Ltd.
United Brassfounders & Engineers, Ltd.

Spur Wheel Hobbing Machines

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Holroyd (John) & Co., Ltd.

Squares, Carpenters'

(*See "Hand Tools, Carpenters'."*)

Squares, Glaziers' (*See "Rules, Measuring."*)

Squares, Graduated

(*See "Rules, Measuring."*)

Squeegees

Avon India Rubber Co., Ltd.
Ingram (J. G.) & Son, Ltd.
Macintosh (Chas.) & Co., Ltd.
North British Rubber Co., Ltd.
Warne (Wm.) & Co., Ltd.

Stable Fittings

Bayliss, Jones & Bayliss, Ltd.
Carron Company.
Musgrave & Co., Ltd.
Newton, Chambers & Co., Ltd.

Stained Glass, Paper, Imitation

Spicer (James) & Sons, Ltd.

Stains

British Drug Houses, Ltd.
International Paint & Compositions Co., Ltd.
Jenson & Nicholson, Ltd.
Major & Co., Ltd.

Stair-rods

Mountford (Fredk.) (Birmingham), Ltd.

Stair Treads

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Carron Company.
Delta Metal Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Macintosh (Chas.) & Co., Ltd.
North British Rubber Co., Ltd.
Warne (Wm.) & Co., Ltd.

Stairs, Iron & Steel

Armstrongs & Main, Ltd.
Bayliss, Jones & Bayliss, Ltd.
Braithwaite & Co.
Carron Company.
Clayton & Shuttleworth, Ltd.
Horseley Bridge & Engineering Co., Ltd.
Measures Bros. (1911), Ltd.
Motherwell Bridge Co., Ltd.
Musgrave & Co., Ltd.
Newton, Chambers & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Wood (Edward) & Co., Ltd.

Stamp Batteries (*See "Mining Machinery."*)

Stamping Machinery (Metal)

Alldays & Onions, Ltd.
Fielding & Platt, Ltd.
Greenwood & Batley, Ltd.
Sale (H. B.), Ltd.

Stampings, Aluminium

Braby (Frederick) & Co., Ltd.
Braime (T. F.) & Co., Ltd.
British Aluminium Co., Ltd.
Brockhouse (J.) & Co., Ltd.
Bulpitt & Sons, Ltd.
Explosives Trades, Ltd.
Joseph (N. C.).
Smith (Thomas) & Sons, of Saltley, Ltd.
Stone (J.) & Co., Ltd.
Suckling, Ltd.
White (E. T.) & Co.

Stampings, Brass, Bronze, &c.

Albion Drop Forgings Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Braime (T. F.) & Co., Ltd.
British Insulated & Helsby Cables, Ltd.
Brown (John) & Co., Ltd.
Bulpitt & Sons, Ltd.
Collyer (John) & Co., Ltd.
Croft (A. J.) & Co., Ltd.
Delta Metal Co., Ltd.
Explosives Trades Co., Ltd.
Greening (W.) & Sons, Ltd.
Sale (H. B.), Ltd.
Harris & Sheldon, Ltd.
Harrison & Co.
McKechnie Bros., Ltd.
Sankey (Joseph) & Sons, Ltd.
Sale (H. B.), Ltd.
Singer (J. W.), Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd
Stone (J.) & Co., Ltd.
Suckling, Ltd.
United Brassfounders & Engineers, Ltd.
White (E. T.) & Co.
Wright, Bindley & Gell, Ltd.

Stampings, Iron & Steel

Aircraft Manufacturing Co., Ltd.
Albion Drop Forgings Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Bain (William) & Co., Ltd.
Bayliss, Jones & Bayliss, Ltd.
Braby (Frederick) & Co., Ltd.
Braime (T. F.) & Co., Ltd.
Brockhouse (J.) & Co., Ltd.
Brown (John) & Co., Ltd.
Bulpitt & Sons, Ltd.
Clayton & Shuttleworth, Ltd.
Cotterill (F. W.), Ltd.
Electro-Mechanical Brake Co., Ltd.
Garrett (Richard) & Sons, Ltd.
Greening (N.) & Sons, Ltd.
Hardy Patent Pick Co., Ltd.
Harris & Sheldon, Ltd.
Harrison & Co.

Stampings, Iron & Steel—*continued.*

Harvey (G. A.) & Co. (London), Ltd.
Head, Wrightson & Co., Ltd.
Holman Bros., Ltd.
Jessop (William) & Sons, Ltd.
Kirkstall Forge, Ltd.
Leeds Forge Co., Ltd.
Ludlow Bros. (1913), Ltd.
MacLellan (P. & W.), Ltd.
Mechans. Ltd.
Motherwell Bridge Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Projectile & Engineering Co., Ltd.
Sale (H. B.), Ltd.
Sankey (Joseph) & Sons, Ltd.
Singer (J. W.) & Sons, Ltd.
Smith (Thomas) & Sons, of Saltley, Ltd.
Smith's (Thomas) Stamping Works, Ltd.
Suckling, Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Vickers, Ltd.
Welsh Tinplate & Metal Stamping Co., Ltd.
Westwood (Joseph) & Co., Ltd.
White (E. T.) & Co.
Wolseley Sheep Shearing Machine Co., Ltd.

Stamps, Date, &c.

Sale (H. B.), Ltd.
Setten & Durward.
Waterlow & Sons Ltd.

Stamps, Steel (Letters, Figures, &c.)

Sale (H. B.), Ltd.
Waterlow & Sons Ltd.

Stanchions

Armstrongs & Main, Ltd.
Bain (William) & Co., Ltd.
Bayliss, Jones & Bayliss, Ltd.
Cargo Fleet Iron Co., Ltd.
Cochrane & Co. (Woodside), Ltd.
Dawnay (Archibald) & Sons, Ltd.
Holmes (W. C.) & Co., Ltd.
Horsehay Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Leeds Forge Co., Ltd.
Measures Bros. (1911), Ltd.
Monometer Manufacturing Co. (1918), Ltd.
Morton (Francis) & Co.
Newton, Chambers & Co., Ltd.
Motherwell Bridge Co., Ltd.
South Durham Steel & Iron Co., Ltd.
Stone (J.) & Co., Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Westwood (Joseph) & Co., Ltd.
Wood (Edward) & Co., Ltd.

Standards, Iron & Steel

Armstrongs & Main, Ltd.
Bain (William) & Co., Ltd.
Bayliss, Jones & Bayliss, Ltd.
Braby (Frederick) & Co., Ltd.
Braithwaite & Co.
British Mannesmann Tube Co., Ltd.
Horsehay Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Johnson & Phillips, Ltd.
Measures Bros. (1911), Ltd.
Morton (Francis) & Co., Ltd.
Motherwell Bridge Co., Ltd.
Newton, Chambers & Co., Ltd.
Sheepbridge Coal & Iron Co., Ltd.
Spencer (John), Ltd.
Stanton Ironworks Co., Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Wood (Edward) & Co., Ltd.

Standpipes, Portable

Blakeborough (J.) & Sons, Ltd.
Glenfield & Kennedy, Ltd.
Piggott (Thomas) & Co., Ltd.
Stone (J.) & Co., Ltd.

Standpipes, Railway

Blakeborough (J.) & Sons, Ltd.
Braithwaite & Co.
Glenfield & Kennedy, Ltd.
Horsehay Co., Ltd.
Mechans, Ltd.
Piggott (Thomas) & Co., Ltd.
Stone (J.) & Co., Ltd.

Staples, Iron (*See "Nails, Wrought."*)

Staples, Wire (*See "Nails, Wire."*)

Starch

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Stationery

(*See also "Envelopes and Paper."*)

Chorley & Pickersgill, Ltd.
Cooke (Alf.), Ltd.
Dickinson (John) & Co., Ltd.
Heywood (John), Ltd.
Macniven & Cameron, Ltd.
Millington & Sons, Ltd.
Norton & Gregory, Ltd.
Setten & Durward.
Sinclair (William) & Sons (Stationers), Ltd.
Spicer (James) & Sons, Ltd.
Tillotson & Son, Ltd.
Waterlow & Sons Ltd.
Witherby & Co.

Statuary, Bronze

Singer (J. W.) & Sons, Ltd.

Steam Dryers (*See "Drying Plant."*)

Steam Fittings (*See "Brassfoundry."*)

Steam Navvies (*See "Excavators."*)

Steamship Owners

Cunard Steamship Co., Ltd.
Furness, Withy & Co., Ltd.
Hill (Charles) & Sons, Ltd.
Houlder Bros. & Co., Ltd.
Lamport & Holt, Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Welsford (J. H.) & Co., Ltd.

Steam Traps

Ashwell & Nesbit, Ltd.
Bell's United Asbestos Co., Ltd.
Haighs (Oldham), Ltd.
Sturtevant Engineering Co., Ltd.

Stearin

British Oil & Cake Mills, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Hess (A.) & Bros., Ltd.
May & Baker, Ltd.

Steel & Iron Works Plant

(*See "Iron and Steel Works Plant."*)

Steel Alloys

Andrew (Jno. Hy.) & Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Beardmore (William) & Co., Ltd.
Beardshaw (J.) & Son, Ltd.
Bessemer (Henry) & Co., Ltd.
Briton Ferry Steel Co., Ltd.
Brown (John) & Co., Ltd.
Brown Bayley's Steel Works, Ltd.
Brymbo Steel Co., Ltd.
Darlington Forge, Ltd.
Firth (Thos.) & Sons, Ltd.
Flather (W. T.), Ltd.
Fox (Samuel) & Co., Ltd.
Gilbertson (W.) & Co., Ltd.
Hadfields, Ltd.
Jessop (William) & Sons, Ltd.
Jonas & Colver, Ltd.
Kayser, Ellison & Co., Ltd.
Monk Bridge Iron & Steel Co., Ltd.
Murex Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Partington Steel & Iron Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Spencer (John) & Sons, Ltd.
Steel, Peech & Tozer, Ltd.
Taylor Bros. & Co., Ltd.
Vickers, Ltd.

Steel Angles

Baldwins, Ltd.
Barrow Hematite Steel Co., Ltd.
Bayliss, Jones & Bayliss, Ltd.
Beardmore (William) & Co., Ltd.
Bolckow, Vaughan & Co., Ltd.
Briton Ferry Steel Co., Ltd.
Brown (John) & Co., Ltd.
Cargo Fleet Iron Co., Ltd.
Consett Iron Co., Ltd.
Cooke (William) & Co., Ltd.
Dawnay (Archibald D.) & Sons, Ltd.
District Iron & Steel Co., Ltd.
Dorman, Long & Co., Ltd.
Ebbw Vale Steel, Coal & Iron Co., Ltd.
Frodingham Iron & Steel Co., Ltd.
Guest, Keen & Nettlefolds, Ltd.
Heath (Robert) & Low Moor, Ltd.
Lanarkshire Steel Co., Ltd.
Measures Bros. (1911), Ltd.
Metropolitan Carriage, Wagon & Finance Co. Ltd
Palmers Shipbuilding & Iron Co., Ltd.
Park Gate Iron & Steel Co., Ltd.
Partington Steel & Iron Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Pearson & Knowles Coal & Iron Co., Ltd.
Port Talbot Steel Co., Ltd.
Redbourn Hill Iron & Coal Co., Ltd.
Redpath, Brown & Co., Ltd.
Sheepbridge Coal & Iron Co., Ltd.
Skinningrove Iron Co., Ltd.
South Durham Steel & Iron Co., Ltd.

Steel Arched Roof Supports (Colliery)

Braithwaite & Co.
Dorman, Long & Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Findley (Alex.) & Co., Ltd.
Head, Wrightson & Co., Ltd.
Horsehay Co., Ltd.
Keay (E., C. & J.), Ltd.
Measures Bros. (1911), Ltd.
Morton (Francis) & Co., Ltd.
Motherwell Bridge Co., Ltd.
Park Gate Iron & Steel Co., Ltd.
Redpath, Brown & Co., Ltd.
Tredegar Iron & Coal Co., Ltd.
Vickers, Ltd.

Steel Balls

Allen (Edgar) & Co., Ltd.
Beardmore (William) & Co., Ltd.
Brown (John) & Co., Ltd.
Gilbertson (W.) & Co., Ltd.
Hadfields, Ltd.
Hoffmann Manufacturing Co., Ltd.
Partington Steel & Iron Co., Ltd.
Ransome & Marles Bearing Co., Ltd.
Rudge-Whitworth, Ltd.

Steel, Band & Hoop

Adams (George) & Sons, Ltd.
Barrow Hematite Steel Co., Ltd.
Beardmore (William) & Co., Ltd.
Braby (Frederick) & Co., Ltd.
British Rolling Mills, Ltd.
Fox (Samuel) & Co., Ltd.
Guest, Keen & Nettlefolds, Ltd.
Heath (Robert) & Low Moor, Ltd.
Pearson & Knowles Coal & Iron Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Summers (John) & Sons, Ltd.
Whitehead Iron & Steel Co., Ltd.

Steel, Bar

Adams (George) & Sons, Ltd.
Allen (Edgar) & Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Baldwins, Ltd.
Barrow Hematite Steel Co., Ltd.
Bayliss (William), Ltd.
Beardmore (William) & Co., Ltd.
Beardshaw (J.) & Son, Ltd.
Bessemer (Henry) & Co., Ltd.
Birchley Rolling Mills, Ltd.
Blaenavon Co., Ltd.
Bolckow, Vaughan & Co., Ltd.
British Rolling Mills, Ltd.
Briton Ferry Steel Co., Ltd.
Brown (John) & Co., Ltd.
Brown Bayley's Steel Works, Ltd.
Brymbo Steel Co., Ltd.
Cargo Fleet Iron Co., Ltd.
Cooke (William) & Co., Ltd.
Cwmfelin Steel & Tinplate Co., Ltd.
Dawnay (Archibald D.) & Sons, Ltd.
District Iron & Steel Co., Ltd.
Dorman, Long & Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Firth (Thos.) & Sons, Ltd.
Flather (W. T.), Ltd.
Fox (Samuel) & Co., Ltd.
Frodingham Iron & Steel Co., Ltd.
Gilbertson (W.) & Co., Ltd.
Grovesend Steel & Tinplate Co., Ltd.
Guest, Keen & Nettlefolds, Ltd.
Hadfields, Ltd.
Hardy Patent Pick Co., Ltd.
Heath (Robert) & Low Moor, Ltd.
Jessop (William) & Sons, Ltd.
Jonas & Colver, Ltd.
Kayser, Ellison & Co., Ltd.
Kirkstall Forge, Ltd.

Steel, Bar—*continued.*

Lanarkshire Steel Co., Ltd.
Lysaght (John), Ltd.
Measures Bros. (1911), Ltd.
Metropolitan Carriage, Wagon & Finance Co., Ltd.
Monk Bridge Iron & Steel Co., Ltd.
North Eastern Steel Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Park Gate Iron & Steel Co., Ltd.
Parkes (E.) & Co., Ltd.
Partington Steel & Iron Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Pearson & Knowles Coal & Iron Co., Ltd.
Port Talbot Steel Co., Ltd.
Redbourn Hill Iron & Coal Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Spencer (John) & Sons, Ltd.
Steel, Peech & Tozer, Ltd.
Summers (John) & Sons, Ltd.
Taylor Bros. & Co., Ltd.
Thomas (Richard) & Co., Ltd.
Vickers, Ltd.
Wardsend Steel Co.
Whitehead Iron & Steel Co., Ltd.

Steel Billets & Blooms

Agricultural & General Engineers, Ltd.
Allen (Edgar) & Co., Ltd.
Andrew (Jno. Hy.) & Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Barrow Hematite Steel Co., Ltd.
Beardmore (William) & Co., Ltd.
Bessemer (Henry) & Co., Ltd.
Blaenavon Co., Ltd.
Bolckow, Vaughan & Co., Ltd.
Briton Ferry Steel Co., Ltd.
Brown Bayley's Steel Works, Ltd.
Brown (John) & Co., Ltd.
Brymbo Steel Co., Ltd.
Cargo Fleet Iron Co., Ltd.
Consett Iron Co., Ltd.
Cwmfelin Steel & Tinplate Co., Ltd.
Darlington Forge, Ltd.
Dorman, Long & Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Flather (W. T.), Ltd.
Fox (Samuel) & Co., Ltd.
Frodingham Iron & Steel Co., Ltd.
Gilbertson (W.) & Co., Ltd.
Guest, Keen & Nettlefolds, Ltd.
Hadfields, Ltd.
Heath (Robert) & Low Moor, Ltd.
Jessop (William) & Sons, Ltd.
Jonas & Colver, Ltd.
Kayser, Ellison & Co., Ltd.
Lanarkshire Steel Co., Ltd.
Lysaght (John), Ltd.
Metropolitan Carriage, Wagon & Finance Co., Ltd.
Monk Bridge Iron & Steel Co., Ltd.
North Eastern Steel Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Park Gate Iron & Steel Co., Ltd.
Partington Steel & Iron Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Port Talbot Steel Co., Ltd.
Redbourn Hill Iron & Coal Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Scott (Walter), Ltd.
Sheepbridge Coal & Iron Co., Ltd.
Skinningrove Iron Co., Ltd.
Spencer (John) & Sons, Ltd.
Steel, Peech & Tozer, Ltd.
Taylor Bros. & Co., Ltd.
Vickers, Ltd.

Steel Buildings & Roofs

(*See "Buildings, Iron and Steel."*)

Steel Ceiling Plates

Dorman, Long & Co., Ltd.
Grovesend Steel & Tinplate Co., Ltd.
Motherwell Bridge Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Vickers, Ltd.

Steel, Chrome Nickel

(*See "Steel Alloys."*)

Steel, Chrome Vanadium

(*See "Steel Alloys."*)

Steel Circles

Baldwins, Ltd.
Braby (Frederick) & Co., Ltd.
Byass (Robt. B.) & Co., Ltd.
Gorse Galvanising Co., Ltd.
Grovesend Steel & Tinplate Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Leeds Forge Co., Ltd.
Ludlow Bros. (1913), Ltd.
Metropolitan Carriage, Wagon & Finance Co., Ltd.
Morton (Francis) & Co., Ltd.
Park Gate Iron & Steel Co., Ltd.
Partington Steel & Iron Co., Ltd.
Piggott (Thomas) & Co., Ltd.
South Durham Steel & Iron Co., Ltd.
Vickers, Ltd.

Steel, Cold Drawn or Rolled

Allen (Edgar) & Co., Ltd.
Andrew (Jno. Hy.) & Co., Ltd.
Balfour (Arthur) & Co., Ltd.
Beardmore (William) & Co., Ltd.
Bessemer (Henry) & Co., Ltd.
British Rolling Mills, Ltd.
Brown Bayley's Steel Works, Ltd.
Chesterfield Tube Co., Ltd.
Flather (W. T.), Ltd.
Fox (Samuel) & Co., Ltd.
Gilbertson (W.) & Co., Ltd.
Hadfields, Ltd.
Hall & Pickles, Ltd.
Jessop (William) & Sons, Ltd.
Jonas & Colver, Ltd.
Kayser, Ellison & Co., Ltd.
Kirkstall Forge, Ltd.
Osborn (Samuel) & Co., Ltd.
Partington Steel & Iron Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Vickers, Ltd.

Steel, Crucible

Allen (Edgar) & Co., Ltd.
Andrew (Jno. Hy.) & Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Balfour (Arthur) & Co., Ltd.
Beardmore (William) & Co., Ltd.
Beardshaw (J.) & Son, Ltd.
Brown (John) & Co., Ltd.
Firth (Thos.) & Sons, Ltd.
Flather (W. T.), Ltd.
Hadfields, Ltd.
Hall & Pickles, Ltd.

Steel, Crucible—*continued.*

Hardy Patent Pick Co., Ltd.
Jessop (William) & Sons, Ltd.
Jonas & Colver, Ltd.
Kayser, Ellison & Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Turton Bros. & Matthews, Ltd.
Vickers, Ltd.

Steel Flanges

Beardmore (William) & Co., Ltd.
British Mannesmann Tube Co., Ltd.
Cotterill (F. W.), Ltd.
Mechans, Ltd.
Metropolitan Carriage, Wagon & Finance Co., Ltd.
Partington Steel & Iron Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Projectile & Engineering Co., Ltd.
Spencer (John), Ltd.
Vickers, Ltd.

Steel Flanges (Weldless)

British Mannesmann Tube Co., Ltd.
Chesterfield Tube Co., Ltd.
Cotterill (F. W.), Ltd.
Mechans, Ltd.
Metropolitan Carriage, Wagon & Finance Co., Ltd.
Partington Steel & Iron Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Projectile & Engineering Co., Ltd.
Vickers, Ltd.

Steel Forgings (*See "Forgings."*)

Steel Girders

Armstrongs & Main, Ltd.
Arrol (Sir William) & Co., Ltd.
Bain (William) & Co., Ltd.
Barrow Hematite Steel Co., Ltd.
Beardmore (William) & Co., Ltd.
Bolckow, Vaughan & Co., Ltd.
Braby (Frederick) & Co., Ltd.
Cargo Fleet Iron Co., Ltd.
Clayton, Son & Co., Ltd.
Cleveland Bridge & Engineering Co., Ltd.
Dawnay (Archibald D.) & Sons, Ltd.
Dorman, Long & Co., Ltd.
Findlay (Alex.) & Co., Ltd.
Frodingham Iron & Steel Co., Ltd.
Heath (Robert) & Low Moor, Ltd.
Holmes (W. C.) & Co., Ltd.
Horsehay Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Keay (E., C. & J.), Ltd.
Lanarkshire Steel Co., Ltd.
Lysaght (John), Ltd.
MacLellan (P. & W.), Ltd.
Measures Bros. (1911), Ltd.
Mechans, Ltd.
Morton (Francis) & Co., Ltd.
Motherwell Bridge Co., Ltd.
North Eastern Steel Co., Ltd.
Orr, Watt & Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Park Gate Iron & Steel Co., Ltd.
Partington Steel & Iron Co., Ltd.
Redbourn Hill Iron & Coal Co., Ltd.
Redpath, Brown & Co., Ltd.
Scott (Walter), Ltd.
Skinningrove Iron Co., Ltd.
Steel, Peech & Tozer, Ltd.
Tees Side Bridge & Engineering Works, Ltd
Westwood (Joseph) & Co., Ltd.
Wood (Edward) & Co., Ltd.

Steel, High Speed

Allen (Edgar) & Co., Ltd.
Andrew (Jno. Hy.) & Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Balfour (Arthur) & Co., Ltd.
Beardmore (William) & Co., Ltd.
Beardshaw (J.) & Son, Ltd.
Brown (John) & Co., Ltd.
Firth (Thos.) & Sons, Ltd.
Flather (W. T.), Ltd.
Fox (Samuel) & Co., Ltd.
Hadfields, Ltd.
Hall & Pickles, Ltd.
Hardy Patent Pick Co., Ltd.
Howell & Co., Ltd.
Jessop (William) & Sons, Ltd.
Jonas & Colver, Ltd.
Kayser, Ellison & Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Partington Steel & Iron Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Turton Bros. & Matthews, Ltd.
Vickers, Ltd.

Steel Ingots

Allen (Edgar) & Co., Ltd.
Andrew (Jno. Hy.) & Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Barrow Hematite Steel Co., Ltd.
Beardmore (William) & Co., Ltd.
Bessemer (Henry) & Co., Ltd.
Blaenavon Co., Ltd.
Briton Ferry Steel Co., Ltd.
Brown Bayley's Steel Works, Ltd.
Brown (John) & Co., Ltd.
Cargo Fleet Iron Co., Ltd.
Consett Iron Co., Ltd.
Cwmfelin Steel & Tinplate Co., Ltd.
Darlington Forge, Ltd.
Dorman, Long & Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Firth (Thos.) & Sons, Ltd.
Flather (W. T.), Ltd.
Fox (Samuel) & Co., Ltd.
Gilbertson (W.) & Co., Ltd.
Hadfields, Ltd.
Jessop (William) & Sons, Ltd.
Jonas & Colver, Ltd.
Kayser, Ellison & Co., Ltd.
Lanarkshire Steel Co., Ltd.
Lysaght (John), Ltd.
Metropolitan Carriage, Wagon & Finance Co., Ltd.
Monk Bridge Iron & Steel Co., Ltd.
North Eastern Steel Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Park Gate Iron & Steel Co., Ltd.
Partington Steel & Iron Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Port Talbot Steel Co., Ltd.
Redbourn Hill Iron & Coal Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Sheepbridge Coal & Iron Co., Ltd.
Spencer (John) & Sons, Ltd.
Steel, Peech & Tozer, Ltd.
Summers (John) & Sons, Ltd.
Taylor Bros. & Co., Ltd.
Turton Bros. & Co., Ltd.
Vickers, Ltd.

Steel Joists

Bain (William) & Co., Ltd.
Barrow Hematite Steel Co., Ltd.
Bolckow, Vaughan & Co., Ltd.
Braithwaite & Co.
Cargo Fleet Iron Co., Ltd.
Dorman, Long & Co., Ltd.
Frodingham Iron & Steel Co., Ltd.
Keay (E., C. & J.), Ltd.
Lanarkshire Steel Co., Ltd.
Measures Bros. (1911), Ltd.
Metropolitan Carriage, Wagon & Finance Co., Ltd.
Newton, Chambers & Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Park Gate Iron & Steel Co., Ltd.
Partington Steel & Iron Co., Ltd.
Redbourn Hill Iron & Coal Co., Ltd
Redpath, Brown & Co., Ltd.
Skinningrove Iron Co., Ltd.
Steel, Peech & Tozer, Ltd.
Vickers, Ltd.

Steel, Nickel (*See "Steel Alloys."*)

Steel Rails (*See "Rails, etc."*)

Steel Plates

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Baldwins, Ltd.
Barrow Hematite Steel Co., Ltd.
Beardmore (William) & Co., Ltd.
Beardshaw (J.) & Son, Ltd.
Birchley Rolling Mills, Ltd.
Bolckow, Vaughan & Co., Ltd.
Braby (Frederick) & Co., Ltd.
British Rolling Mills, Ltd.
Consett Iron Co., Ltd.
Dawnay (Archibald D.) & Sons, Ltd.
Dorman, Long & Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd
Guest, Keen & Nettlefolds, Ltd.
Heath (Robert) & Low Moor, Ltd.
Jessop (William) & Sons, Ltd.
Kayser, Ellison & Co., Ltd.
Leeds Forge Co., Ltd.
Measures Bros. (1911), Ltd.
Metropolitan Carriage, Wagon & Finance Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Park Gate Iron & Steel Co., Ltd.
Partington Steel & Iron Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Port Talbot Steel Co., Ltd.
Redpath, Brown & Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
South Durham Steel & Iron Co., Ltd.
Spencer (John) & Sons, Ltd.
Stewarts & Lloyds, Ltd.
Summers (John) & Sons, Ltd.
Vickers, Ltd.

Steel Ropes (*See "Ropes, Steel."*)

Steel, Scrap (*See "Scrap Iron and Steel."*)

Steel Sections (Various)

Allen (Edgar) & Co., Ltd.
Andrew (Jno. Hy.) & Co., Ltd.
Armstrongs & Main, Ltd.
Barrow Hematite Steel Co., Ltd.
Beardmore (William) & Co., Ltd.
Beardshaw (J.) & Son, Ltd.
Bolckow, Vaughan & Co., Ltd.
British Rolling Mills, Ltd.
Briton Ferry Steel Co., Ltd.
Brown Bayley's Steel Works, Ltd.
Brown (John) & Co., Ltd.
Cargo Fleet Iron Co., Ltd.
Consett Iron Co., Ltd.
Dawnay (Archibald D.) & Sons, Ltd.
District Iron & Steel Co., Ltd.
Dorman, Long & Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Flather (W. T.), Ltd.
Frodingham Iron & Steel Co., Ltd.
Guest, Keen & Nettlefolds, Ltd.
Hardy Patent Pick Co., Ltd.
Heath (Robert) & Low Moor, Ltd.
Jonas & Colver, Ltd.
Kayser, Ellison & Co., Ltd.
Kirkstall Forge, Ltd.
Lanarkshire Steel Co., Ltd.
Measures Bros. (1911), Ltd.
Metropolitan Carriage, Wagon & Finance Co., Ltd
Osborn (Samuel) & Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Park Gate Iron & Steel Co., Ltd.
Partington Steel & Iron Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Pearson & Knowles Coal & Iron Co., Ltd.
Port Talbot Steel Co., Ltd.
Redbourn Hill Iron & Coal Co., Ltd.
Sanderson Bros. & Newbould, Ltd
Steel, Peech & Tozer, Ltd.
Turton Bros. & Matthews, Ltd.
Vickers, Ltd.
Whitehead Iron & Steel Co., Ltd.

Steel, Shear

Allen (Edgar) & Co., Ltd.
Balfour (Arthur) & Co., Ltd.
Beardshaw (J.) & Son, Ltd.
Brown (John) & Co., Ltd
Osborn (Samuel) & Co., Ltd.
Partington Steel & Iron Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Turton Bros. & Matthews, Ltd.
Vickers, Ltd.

Steel, Sheet

Adams (George) & Sons, Ltd.
Baldwins, Ltd.
Beardmore (William) & Co., Ltd.
Beardshaw (J.) & Son, Ltd.
Birchley Rolling Mills, Ltd.
Birmingham Corrugated Iron Co., Ltd.
Bolckow, Vaughan & Co., Ltd.
Braby (Frederick) & Co., Ltd.
British Rolling Mills, Ltd.
Byass (Robt. B.) & Co.
Cwmfelin Steel & Tinplate Co., Ltd.
Dorman, Long & Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Firth (Thos.) & Sons, Ltd.
Flather (W. T.), Ltd.
Gilbertson (W.) & Co., Ltd.
Grovesend Steel & Tinplate Co., Ltd.
Jessop (William) & Sons, Ltd.
Kayser, Ellison & Co., Ltd.
Lysaght (John), Ltd.
Measures Bros. (1911), Ltd.
Metropolitan Carriage, Wagon & Finance Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Park Gate Iron & Steel Co., Ltd.
Partington Steel & Iron Co., Ltd.
Patent Shaft & Axletree Co., Ltd.

Steel, Sheet—*continued.*

Pontnewynydd Sheet & Galvanising Co., Ltd.
Port Talbot Steel Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Sankey (Joseph) & Sons, Ltd.
South Durham Steel & Iron Co., Ltd.
Summers (John) & Sons, Ltd.
Turton Bros. & Matthews, Ltd.
Vickers, Ltd.
Wardsend Steel Co.
Wellfield Galvanising Co., Ltd.

Steel Sheet (Corrugated)

Adams (George) & Sons, Ltd.
Armstrongs & Main, Ltd.
Baldwins, Ltd.
Beardmore (William) & Co., Ltd.
Birmingham Corrugated Iron Co., Ltd.
Bolckow, Vaughan & Co., Ltd.
Braby (Frederick) & Co., Ltd.
Dawnay (Archibald D.) & Sons, Ltd.
Dorman, Long & Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Gilbertson (W.) & Co., Ltd.
Gorse Galvanising Co., Ltd.
Grovesend Steel & Tinplate Co., Ltd.
Ludlow Bros. (1913), Ltd.
Lysaght (John), Ltd.
Measures Bros. (1911), Ltd.
National Galvanisers, Ltd.
Pearson & Knowles Coal & Iron Co., Ltd.
Pontnewynydd Steel & Galvanising Co., Ltd.
Summers (John) & Sons, Ltd.
Wellfield Galvanising Co., Ltd.

Steel Sheet (Galvanized)

Adams (George) & Sons, Ltd.
Baldwins, Ltd.
Beardmore (William) & Co., Ltd.
Birmingham Corrugated Iron Co., Ltd.
Bolckow, Vaughan & Co., Ltd.
Braby (Frederick) & Co., Ltd.
Dawnay (Archibald D.) & Sons, Ltd.
Dorman, Long & Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Gilbertson (W.) & Co., Ltd.
Gorse Galvanising Co., Ltd.
Grovesend Steel & Tinplate Co., Ltd.
Ludlow Bros. (1913), Ltd.
Lysaght (John), Ltd.
Measures Bros. (1911), Ltd.
National Galvanisers, Ltd.
Pearson & Knowles Coal & Iron Co., Ltd.
Pontnewynydd Sheet & Galvanising Co., Ltd.
Summers (John) & Sons, Ltd.
Wellfield Galvanizing Co., Ltd.

Steel Sheet, Terne Coated & Lead Coated

Baldwins, Ltd.
Byass (Robt. B.) & Co., Ltd.
Gilbertson (W.) & Co., Ltd.
Grovesend Steel & Tinplate Co., Ltd.

Steel Sheets, Tinned

Baldwins, Ltd.
Grovesend Steel & Tinplate Co., Ltd.
Metropolitan Carriage, Wagon & Finance Co., Ltd.
Partington Steel & Iron Co., Ltd.

Steel Shelving

Braby (Frederick) & Co., Ltd.
Crittall Manufacturing Co., Ltd.
Harris & Sheldon, Ltd.
Horseley Bridge & Engineering Co., Ltd.
Ludlow Bros. (1913), Ltd.
Mechans, Ltd.
Sankey (Joseph) & Sons, Ltd.
Tann (John), Ltd.
Westwood (Joseph) & Co., Ltd.

Steel, Spring

Allen (Edgar) & Co., Ltd.
Andrew (Jno. Hy.) & Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Balfour (Arthur) & Co., Ltd.
Barrow Hematite Steel Co., Ltd.
Beardshaw (J.) & Son, Ltd.
Bessemer (Henry) & Co., Ltd.
Brown Bayley's Steel Works, Ltd.
Brown (John) & Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Firth (Thos.) & Sons, Ltd.
Flather (W. T.), Ltd.
Fox (Samuel) & Co., Ltd.
Guest, Keen & Nettlefolds, Ltd.
Jessop (William) & Sons, Ltd.
Jonas & Colver, Ltd.
Kayser, Ellison & Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Partington Steel & Iron Co., Ltd.
Port Talbot Steel Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Spencer (John) & Sons, Ltd.
Steel, Peech & Tozer, Ltd.
Turton Bros. & Matthews, Ltd.
Vickers, Ltd.

Steel, Stainless

Allen (Edgar) & Co., Ltd.
Andrew (Jno. Hy.) & Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Balfour (Arthur) & Co., Ltd.
Beardshaw (J.) & Son, Ltd.
Brown Bayley's Steel Works, Ltd.
Firth (Thos.) & Sons, Ltd.
Fox (Samuel) & Co., Ltd.
Hadfields, Ltd.
Kayser, Ellison & Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Partington Steel & Iron Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Vickers, Ltd.

Steel Strip

Adams (George) & Sons, Ltd.
Birchley Rolling Mills, Ltd.
District Iron & Steel Co., Ltd.
Fox (Samuel) & Co., Ltd.
Gorse Galvanizing Co., Ltd.
Metropolitan Carriage, Wagon & Finance Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Park Gate Iron & Steel Co., Ltd.
Partington Steel & Iron Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
South Durham Steel & Iron Co., Ltd.
Summers (John) & Sons, Ltd.
Turton Bros. & Matthews, Ltd.
Wigan Rolling Mills Co., Ltd.

Steel Structural Work

Armstrongs & Main, Ltd.
Arrol (Sir William) & Co., Ltd
Bain (William) & Co., Ltd.
Braby (Frederick) & Co., Ltd.
Braithwaite & Co.
Bullers, Ltd.
Cargo Fleet Iron Co., Ltd.
Carron Company.
Clayton, Son & Co., Ltd.
Cleveland Bridge & Engineering Co., Ltd.
Cutler (Samuel) & Sons, Ltd.
Dawnay (Archibald D.) & Sons, Ltd.
Dorman, Long & Co., Ltd.
Findlay (Alex.) & Co., Ltd.
Frodingham Iron & Steel Co., Ltd.
Hardy Patent Pick Co., Ltd.
Head, Wrightson & Co., Ltd.
Holmes (W. C.) & Co., Ltd.
Horsehay Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Keay (E., C. & J.), Ltd.
Lanarkshire Steel Co., Ltd.
Ludlow Bros. (1913), Ltd.
MacLellan (P. & W.), Ltd.
Measures Bros. (1911), Ltd.
Mechans, Ltd.
Metropolitan Carriage, Wagon & Finance Co., Ltd;
Morton (Francis) & Co., Ltd.
Motherwell Bridge Co., Ltd.
Newton, Chambers & Co., Ltd.
Orr, Watt & Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Partington Steel & Iron Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Pearson & Knowles Coal & Iron Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Plowright Bros., Ltd.
Redpath, Brown & Co., Ltd.
Scott (Walter), Ltd.
Tees Side Bridge & Engineering Works, Ltd
Westwood (Joseph) & Co., Ltd.
Whessoe Foundry Co., Ltd.
Whitehead Iron & Steel Co., Ltd.
Wild (M. B.) & Co., Ltd.
Wood (Edward) & Co., Ltd.

Steel Structural Work, Tubular

Armstrongs & Main, Ltd.
Braby (Frederick) & Co., Ltd.
Braithwaite & Co.
British Mannesmann Tube Co., Ltd.
Bullers, Ltd.
Chesterfield Tube Co., Ltd.
Clayton, Son & Co., Ltd.
Cleveland Bridge & Engineering Co., Ltd.
Dawnay (Archibald D.) & Sons, Ltd.
Findlay (Alex.) & Co., Ltd.
Horsehay Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Motherwell Bridge Co., Ltd.
Orr, Watt & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Stewarts & Lloyds, Ltd.
Westwood (Joseph) & Co., Ltd.

Steel Tanks

Armstrongs & Main, Ltd.
Braby (Frederick) & Co., Ltd.
Braithwaite & Co.
Clayton, Son & Co., Ltd.
Cleveland Bridge & Engineering Co., Ltd.
Cradley Boiler Co., Ltd.
Cutler (Samuel) & Sons, Ltd.
Findlay (Alex.) & Co., Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Glover & Main, Ltd.
Harvey (G. A.) & Co. (London), Ltd.
Head, Wrightson & Co., Ltd.
Holmes (W. C.) & Co., Ltd.
Horsehay Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Hurst, Nelson & Co., Ltd.
Keay (E., C. & J.), Ltd.
Ludlow Bros. (1913), Ltd.
Lysaght (John), Ltd.
MacLellan (P. & W.), Ltd.
Measures Bros. (1911), Ltd.
Mechans, Ltd.
Monk Bridge Iron & Steel Co., Ltd.
Motherwell Bridge Co., Ltd.
Newton, Chambers & Co,, Ltd.
Orr, Watt & Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Pearson & Knowles Coal & Iron Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Redpath, Brown & Co., Ltd.
Steel Barrel Co., Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Valor Co., Ltd.
Westwood (Joseph) & Co., Ltd.
Whessoe Foundry Co., Ltd.
Yates & Thom, Ltd.

Steel, Tool

Allen (Edgar) & Co., Ltd.
Andrew (Jno. Hy.) & Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Balfour (Arthur) & Co., Ltd.
Beardmore (William) & Co., Ltd.
Brown Bayley's Steel Works, Ltd.
Brown (John) & Co., Ltd.
Firth (Thos.) & Sons, Ltd.
Flather (W. T.), Ltd.
Fox (Samuel) & Co., Ltd.
Gilbertson (W.) & Co., Ltd.
Hadfields, Ltd.
Hall & Pickles, Ltd.
Hardy Patent Pick Co., Ltd.
Howell & Co., Ltd.
Jessop (William) & Sons, Ltd.
Jonas & Colver, Ltd.
Keyser, Ellison & Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Partington Steel & Iron Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Turton Bros. & Matthews, Ltd.
Vickers, Ltd.

Steering Gears

Carron Company.
Holroyd (John) & Co., Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.

Stencils, Zinc

Harvey (G. A.) & Co. (London), Ltd.

Stereoscopes *(See "Instruments, Optical.")*

Stereotyping Machinery

Linotype & Machinery, Ltd.
Northern, Press & Engineering Co., Ltd.

Sterilizers

General Electric Co., Ltd.
Manlove, Alliott & Co., Ltd.

Stew Pans (*See "Hollow-ware."*)

Stocks & Dies, Taps, &c.

Alldays & Onions, Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Beardshaw (J.) & Son, Ltd.
Davis & Timmins, Ltd.
English Electric Co., Ltd.
Robinhood Engineering Works, Ltd.
Youngs.

Stockinette

Howe (W. & H.).
Lister & Co., Ltd.
Neckwear, Ltd.
Walker Bros.
Wolsey, Ltd.

Stockings (*See "Hosiery."*)

Stokers, Mechanical

Agricultural & General Engineers, Ltd.
Stirling Boiler Co., Ltd.

Stone-ware

Doulton & Co., Ltd.
Jennings (George), Ltd.

Stoneworking & Quarrying Plant

Allen (Edgar) & Co., Ltd.
Hadfields, Ltd.
Holman Bros., Ltd.
Marsden (H. R.), Ltd.
Sandycroft, Ltd.

Stoneworking & Quarrying Tools
(*See "Hand Tools."*)

Stout (*See "Beer," etc.*)

Stoves, Ranges & Fireplace Grates (Coal and Coke)

Carron Company.
Glover & Main, Ltd.
Manlove, Alliott & Co., Ltd.
Monometer Manufacturing Co. (1918), Ltd.
Musgrave & Co., Ltd.
Smith & Wellstood, Ltd.
Wright (John) & Eagle Range, Ltd.

Stoves, Japanning & Lacquering

Alldays & Onions, Ltd.
Brightside Foundry & Engineering Co., Ltd.
Glover & Main, Ltd.
Hollings & Guest, Ltd.
Wright (John) & Eagle Range, Ltd.

Straight Edges (*See "Rules."*)

Straw Braid & Chip Braid (*See "Plait."*)

Strong Rooms (*See "Safes and Vaults."*)

Strontium Salts

British Drug Houses, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Strops

Evans, Sons, Lescher & Webb, Ltd.
Finnigans, Ltd.
Maw (S.), Son & Sons, Ltd.

Structural Steel & Ironwork
(*See "Steel Structural Work."*)

Strychnine & Salts

Evans, Sons, Lescher & Webb, Ltd
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Studs, Collar

Collins (C. H.) & Sons, Ltd.
Edmonds (George), Ltd.

Submarines

Beardmore (William) & Co., Ltd.
Fairfield Shipbuilding & Engineering Co., Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Thornycroft (John I.) & Co., Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.
Yarrow & Co., Ltd.

Suction Gas Plant
(*See "Gas Producing Plant."*)

Suet

Crosse & Blackwell (Mfg. Co.), Ltd
Globe Refining Co., Ltd.
Thornley (Samuel), Ltd.

Sugar

Fairrie & Co., Ltd.
Colonial Sugar Refining Co., Ltd.
Lyle (Abram) & Sons, Ltd.
Macfie & Sons.
Tate (Henry) & Sons, Ltd.
Walker (John) & Co.

Sugar of Milk

Evans, Sons, Lescher & Webb, Ltd.

Sugar Machinery

Fowler (John) & Co. (Leeds), Ltd.
Hudson (Robert), Ltd.
Manlove, Alliott & Co., Ltd.
Mechans, Ltd.
Mirrlees, Watson Co., Ltd.
Rees Roturbo Manufacturing Co., Ltd

Sulphonal

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Sulphur

Chance & Hunt, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
United Alkali Co., Ltd.

Sulphur Chloride

Boake (A.), Roberts & Co., Ltd.
Castner-Kellner Alkali Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Superheaters

Agricultural & General Engineers, Ltd.
Clarke, Chapman & Co., Ltd.
Clay Cross Co., Ltd.
Howell & Co., Ltd.
Mechans, Ltd.
North Eastern Marine Engineering Co., Ltd.
Stirling Boiler Co., Ltd.
Stone (J.) & Co., Ltd.
Vickers, Ltd.
Yarrow & Co., Ltd.
Yates & Thom, Ltd.

Surface Boxes

Blakeborough (J.) & Sons, Ltd.
Glenfield & Kennedy, Ltd.
Stanton Ironworks Co., Ltd.
Stone (J.) & Co., Ltd.

Surface Plates

Alldays & Onions, Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Associated British Machine Tool Makers, Ltd.
Hooker (Peter), Ltd.
Piggott (Thomas) & Co., Ltd.
Stanton Ironworks Co., Ltd.
Stone (J.) & Co., Ltd.

Surgical Appliances & Instruments

Evans, Sons, Lescher & Webb, Ltd.
Maw (S.), Son & Sons, Ltd.

Surgical Dressings & Bandages

Macintosh (Chas.) & Co., Ltd.
Maw (S.), Son & Sons, Ltd.
North British Rubber Co., Ltd.
Pearson (William), Ltd.
Vernon & Co., Ltd.
Warne (William) & Co., Ltd.

Swage Blocks (*See "Anvils."*)

Swages (*See "Hand Tools, Blacksmiths'."*)

Sweaters (*See "Hosiery."*)

Sweepers, Street

Braby (Frederick) & Co., Ltd.

Switchboards & Switches, Electric

Canning (W.) & Co.
Crompton & Co., Ltd.
Edison Swan Electric Co., Ltd.
Electric Construction Co., Ltd.
Electrical Apparatus Co., Ltd.
Ellison (George).
English Electric Co., Ltd.
General Electric Co., Ltd.
Greenwood & Batley, Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Johnson & Phillips, Ltd.
Lucas (Joseph), Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Tucker (J. H.) & Co., Ltd.

Syringes

Benton & Stone, Ltd.
Bulpitt & Sons, Ltd.
Ingram (J. G.) & Son, Ltd.
United Brassfounders & Engineers, Ltd.

Switch Gear, Electric

Allen (W. H.), Sons & Co., Ltd.
Blackwell (Robert W.) & Co., Ltd.
Crompton & Co., Ltd.
Edison Swan Electric Co., Ltd.
Electric Construction Co., Ltd.
Electrical Apparatus Co., Ltd.
Electro-Mechanical Brake Co., Ltd.
Ellison (George).
English Electric Co., Ltd.
General Electric Co., Ltd.
Greenwood & Batley, Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Johnson & Phillips, Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Sandycroft, Ltd.
Tucker (J. H.) & Co., Ltd.

Swivels

Kirkstall Forge, Ltd.

Syphons

Piggott (Thomas) & Co., Ltd.
Stanton Ironworks Co., Ltd.
Staveley Coal & Iron Co., Ltd.

Syrens (*See "Whistles, Steam."*)

Syrup, Fruit

British Drug Houses, Ltd.
Crosse & Blackwell (Mfg. Co.), Ltd.
Maconochie Bros., Ltd.
Simpson (William) (Manchester), Ltd.

Syrup, Golden

Crosse & Blackwell (Mfg. Co.), Ltd
Fairie & Co., Ltd.
Lyle (Abram) & Sons, Ltd.
Macfie & Sons.
Tate (Henry) & Sons, Ltd.
Walker (John) & Co.

T

Tablets, Compressed Drug
(*See "Medicinal Products, Compressed."*)

Tachometers (*See "Instruments, Surveying."*)

Tacks (*See "Nails, etc."*)

Tallow

Butler (William) & Co. (Bristol), Ltd.
Gaunt & Hickman.
Hess (A.) & Bro., Ltd.

Tanks, Aluminium

Braby (Frederick) & Co., Ltd.
British Aluminium Co., Ltd.
Joseph (N. C.).
Mechans, Ltd.
Stone (J.) & Co., Ltd.

Tanks, Cast Iron

Brightside Foundry & Engineering Co., Ltd.
Clay Cross Co., Ltd.
Doulton & Co., Ltd.
Head, Wrightson & Co., Ltd.
Holman, Bros., Ltd.
Holmes (W. C.) & Co., Ltd.
Horsehay Co., Ltd.

Tanks, Cast Iron—*continued.*

Lysaght (John), Ltd.
Mather & Platt, Ltd.
Measures Bros. (1911), Ltd.
Newton, Chambers & Co., Ltd.
Orr, Watt & Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Sheepbridge Coal & Iron Co., Ltd.
Stanton Ironworks Co., Ltd.
Staveley Coal & Iron Co., Ltd.
Whessoe Foundry Co., Ltd.
Yates & Thom, Ltd.

Tanks, Sheet Iron & Steel

Acetylene Corporation of Great Britain, Ltd.
Aircraft Manufacturing Co., Ltd.
Baldwins, Ltd.
Braby (Fredk.) & Co., Ltd.
Braithwaite & Co.
Brinjes & Goodwin, Ltd.
Clayton, Son & Co., Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Harvey (G. A.) & Co. (London), Ltd.
Head, Wrightson & Co., Ltd.
Holman Bros., Ltd.
Horsehay Co., Ltd.
Lamplough Radiator & Engineering Co., Ltd.
Ludlow Bros. (1913), Ltd.
Lysaght (John), Ltd.
MacLellan (P. & W.), Ltd.
Matthews & Yates, Ltd.
Measures Bros. (1911), Ltd.
Mechans, Ltd.
Monk Bridge Iron & Steel Co., Ltd.
Motherwell Bridge Co., Ltd.
National Galvanizers, Ltd.
Newton, Chambers & Co., Ltd.
Orr, Watt & Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Redpath, Brown & Co., Ltd.
Short Bros. (Rochester & Bedford), Ltd.
Steel Barrel Co., Ltd.
Valor Co., Ltd.
Whessoe Foundry Co., Ltd.

Tankers

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Fairfield Shipbuilding & Engineering Co., Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Hill (Charles) & Sons, Ltd.
Laing (Sir James) & Sons, Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Short Bros. (Rochester & Bedford), Ltd.
Thompson (Joseph L.) & Sons, Ltd.
Thornycroft (John I.) & Co., Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.

Tanners

Barrow (Samuel) & Brother, Ltd.
Hepburn, Gale & Ross, Ltd.

Tanners' & Curriers' Chemicals

British Cotton & Wool Dyers' Association, Ltd.
Brotherton & Co., Ltd.
United Alkali Co., Ltd.

Tanning Machinery

Greenwood & Batley, Ltd.

Tape

Fabricless Products, Ltd.
Faire Bros. & Co., Ltd.
Morgan, Crossley & Co., Ltd.
Setten & Durward.

Tape, Insulating

Avon India Rubber Co., Ltd.
Bates (W. & A.), Ltd.
Bell's United Asbestos Co., Ltd.
Blackwell (Robert W.) & Co., Ltd.
Callender's Cable & Construction Co., Ltd.
Henley's (W. T.) Telegraph Works Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Ingram (J. G.) & Son, Ltd.
Johnson & Phillips, Ltd.
Moseley (David) & Sons, Ltd.
Vickers, Ltd.

Taper Pins

Cotterill (F. W.), Ltd.
Greener (W. W.), Ltd.
Guest, Keen & Nettlefolds, Ltd.
Mountford (Fredk.) (Birmingham), Ltd.

Tapes, Measuring

Halden (J.) & Co., Ltd.
Hall (B. J.) & Co., Ltd.

Tapestry & Upholstery Fabrics

Calico Printers' Association, Ltd.
Dearden (Jonathan) & Co., Ltd.
Fur Fabric Co., Ltd.
Lister & Co., Ltd.
Simpson & Godlee, Ltd.
Thomas (J.) & Co., Ltd.
Tootal Broadhurst, Lee Co., Ltd.
Walker Bros.

Taps & Fittings (*See "Brassfoundry."*)

Taps, Screwing (*See "Stocks and Dies."*)

Tar (*See "Coal Tar."*)

Tar Distillation Plant
(*See "Chemical Plant."*)

Tarpaulin

Mitchell (Andrew) & Co., Ltd.
Piggott Bros. & Co., Ltd.
Scott (James) & Sons, Ltd.
Stott (James), Ltd.
Wright (John & Edwin), Ltd.

Tea

Nagersheth (M.) Sons.
Payne (George) & Co., Ltd.

Tea Lead

Betts & Co., Ltd.
Mellowes & Co., Ltd.

Tea Machinery

Davidson & Co., Ltd.
Marshall, Sons & Co., Ltd.

Tees (*See "Steel."*)

Telegraph Apparatus
(*See "Instruments, Telegraphic."*)

Telegraph Apparatus (Wireless)
(*See "Instruments, Telegraph, Wireless."*)

Telegraph & Telephone Line Equipment
Blackwell (Robert J.) & Co., Ltd.
British Insulated & Helsby Cables, Ltd.
Bullers, Ltd.
Callender's Cable & Construction Co., Ltd.
General Electric Co., Ltd.
Guest, Keen & Nettlefolds, Ltd.
Hardy Patent Pick Co., Ltd.
Henley's (W. T.) Telegraph Works Co., Ltd.
Morton (Francis) & Co., Ltd.
Spencer (John), Ltd.
Sterling Telephone & Electric Co., Ltd.
Stewarts & Lloyds, Ltd.

Telegraphs, Ships'
Barr & Stroud, Ltd.
Chadburn's (Ship) Telegraph Co., Ltd.
Mechans, Ltd.
Stone (J.) & Co., Ltd.

Telephones & Accessories
Brown (S. G.), Ltd.
Bullers, Ltd.
Edison Swan Electric Co., Ltd
General Electric Co., Ltd.
Sterling Telephone & Electric Co., Ltd.
Telephone Manufacturing Co., Ltd.

Telescopes (*See "Instruments, Optical."*)

Telpher Plant
Braithwaite & Co.
Cutler (Samuel) & Sons, Ltd.
Mechans, Ltd.

Templates, Standard
(*See "Gauges, Standard."*)

Tents
Central Aircraft Co.
Piggott Bros. & Co., Ltd.
Stott (James), Ltd.

Terebene
Boots Pure Drug Co., Ltd.
British Drug Houses, Ltd.
Clark (Robert Ingham) & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd
Howards & Sons, Ltd.
International Paint & Compositions Co., Ltd.
May & Baker, Ltd.
Rose (Sir W. G.) & Co., Ltd.

Terneplates
Baldwins, Ltd.
Byass (Robt. B.) & Co., Ltd.
Gilbertson (W.) & Co., Ltd.
Grovesend Steel & Tinplate Co., Ltd.
Old Castle Iron & Tinplate Co., Ltd.

Terpene Hydrate
Boake (A.), Roberts & Co., Ltd.
Bush (W. J.) & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Terpinol
Boake (A.), Roberts & Co., Ltd.
Bush (W. J.) & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Terra-cotta, Architectural & Decorative
Doulton & Co., Ltd.

Testing Machines
Avery (W. & T.), Ltd.

Testing Sets, Electric (*See "Electric, etc."*)

Textile Machinery
Fairbairn Lawson Combe Barbour, Ltd.
Greenwood & Batley, Ltd.
Mather & Platt, Ltd.
Robertson & Orchar, Ltd.
Urquhart, Lindsay & Co., Ltd.

Textile Machinery Accessories
Greenwood & Batley, Ltd.
Mitchell (Wm.) (Pens), Ltd.
Pugh (Charles H.), Ltd.
Wilson Bros. Bobbin Co., Ltd.

Textile Motors & Equipment
Brush Electrical Engineering Co., Ltd.
Electric Construction Co., Ltd.
English Electric Co., Ltd.
General Electric Co., Ltd.
Greenwood & Batley, Ltd.
Matthews & Yates, Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Parsons (C. A.) & Co., Ltd.

Theodolites (*See "Instruments, Surveying*

Theobromine & Salts
Boots Pure Drug Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Thermometers, Barometers (Mercury), Hydrometers, &c.
Evans, Sons, Lescher & Webb, Ltd.
Halden (J.) & Co., Ltd.

Thread (*See "Cotton," "Silk," etc.*)

Threshing Machines
Agricultural & General Engineers, Ltd.
Clayton & Shuttleworth, Ltd.
Marshall, Sons & Co., Ltd.
Ransomes, Sims & Jefferies, Ltd.
Ruston & Hornsby, Ltd.

Thymol
Bush (W. J.) & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Ticket Machinery (Railway, &c.)
Waterlow & Sons Ltd.

Tickets, Railway, Tram & Omnibus
Waterlow & Sons Ltd.

Tie Clips

Collins (C. H.) & Sons, Ltd.
Edmonds (George), Ltd.
Smith (John), Ltd.
Terry (Herbert) & Sons, Ltd.

Tile Machinery

(See "Brick and Tile Machinery.")

Tiles, Enamelled, Glazed, &c.

Kent (George), Ltd.
Ludlow Bros. (1913), Ltd.
Vickers, Ltd.

Tiles, Roofing, Asbestos

Bell's United Asbestos Co., Ltd.
Hobdell, Way & Co., Ltd.
Turner Bros. Asbestos Co., Ltd.

Timber

Birch (William), Ltd.
Burt, Boulton & Haywood, Ltd.
Calders, Ltd.
Lebus (Harris).
Longbotham (Jonathan) & Sons, Ltd.
Nagersheth (M.) Sons.
Remer (John) & Co., Ltd.
Rowbotham (Thomas).

Timber Drying Plant

Alldays & Onions, Ltd.
Matthews & Yates, Ltd.
Musgrave & Co., Ltd.
Pulsometer Engineering Co., Ltd.
Remer (John) & Co., Ltd.
Sturtevant Engineering Co., Ltd.

Tin Cans *(See "Tinware.")*

Tin Crystals

Capper Pass & Sons, Ltd.
Coleman & Appleby, Ltd.
May & Baker, Ltd.

Tin Foil *(See "Foil, Tin.")*

Tin, Ingot

Batchelor, Robinson & Co., Ltd.
Capper Pass & Sons, Ltd.
Clifford (Charles) & Son, Ltd.

Tin Perchloride

Batchelor, Robinson & Co., Ltd.
Forbes, Abbott & Lennard, Ltd.
May & Baker, Ltd.

Tinmen's Tools *(See "Hand Tools.")*

Tinplates

Baldwins, Ltd.
Cwmfelin Steel & Tinplate Co., Ltd.
Gilbertson (W.) & Co., Ltd.
Grovesend Steel & Tinplate Co., Ltd.
Old Castle Iron & Tin-plate Co., Ltd.
Thomas (Richard) & Co., Ltd.

Tin Plating Chemicals

Canning (W.) & Co.
Coleman & Appleby, Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Tin Products (Chemical)

Batchelor, Robinson & Co., Ltd.
British Drug Houses, Ltd.
Canning (W.) & Co.

Tinware

Bulpitt & Sons, Ltd.
Hancock, Corfield & Waller, Ltd.
Sankey (Joseph) & Sons, Ltd.
Welsh Tinplate & Metal Stamping Co., Ltd.

Tinder Fuse Cords

Morgan, Crossley & Co., Ltd.

Titanium

Johnson, Matthey & Co., Ltd.
May & Baker, Ltd.

Titanium Compounds

Blackwell (George G.), Sons & Co., Ltd.
Johnson, Matthey & Co., Ltd.
May & Baker, Ltd.
Spence (Peter) & Sons, Ltd.

Tobacco & Cigarettes

Abdulla & Co., Ltd.
British-American Tobacco Co., Ltd.
Dunhill (Alfred).
Foyer Cigarette Co.
Lea (R. J.), Ltd.

Tobacco Machinery

Davidson & Co., Ltd.
Hollings & Guest, Ltd.

Tobacco Pouches

Cow (P. B.) & Co., Ltd.
Dunhill (Alfred).
Finnigans, Ltd.
Macintosh (Chas.) & Co., Ltd.
Moseley (David) & Sons, Ltd.
Warne (William) & Co., Ltd.

Toilet Goods, Fancy

Finnigans, Ltd.
Maw (S.), Son & Sons, Ltd.
Terry (Herbert) & Sons, Ltd.

Toilet Preparations

British Drug Houses, Ltd.
Crosfield (Joseph) & Sons, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Maw (S.), Son & Sons, Ltd.

Toilet Ware

(See "Pottery and Pottery Ware.")

Toluene

Baird (William) & Co., Ltd.
Bolckow, Vaughan & Co., Ltd.
British Dyestuffs Corporation, Ltd.
Brotherton & Co., Ltd.
Burt, Boulton & Haywood, Ltd.
Butler (William) & Co. (Bristol), Ltd.
Cargo Fleet Iron Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Gas Light & Coke Co.

Toluene—*continued.*

Leitch (John W.) & Co.
Major & Co., Ltd.
May & Baker, Ltd.
Newton, Chambers & Co., Ltd.
Redbourn Hill Iron & Coal Co., Ltd.
Skinningrove Iron Co., Ltd.
South Metropolitan Gas Co.

Toluol

Baird (Wm.) & Co., Ltd.
Bell Bros., Ltd.
Brotherton & Co., Ltd.
Burt, Boulton & Haywood, Ltd.
Butler (William) & Co. (Bristol), Ltd.
Cargo Fleet Iron Co., Ltd.
Consett Iron Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Explosives Trades, Ltd.
Forbes, Abbott & Lennard, Ltd.
Gas Light & Coke Co.
Gas Lighting Improvement Co., Ltd.
Leitch (John W.) & Co.
Major & Co., Ltd.
May & Baker, Ltd.
Pease & Partners, Ltd.
Redbourn Hill Iron & Coal Co., Ltd.
Skinningrove Iron Co., Ltd.
South Metropolitan Gas Co.
Staveley Coal & Iron Co., Ltd.

Tongs (*See "Furniture, Hearth."*)

Tongs, Blacksmiths' & Pipe (*See "Hand Tools," and "Spanners and Wrenches."*)

Tool Chests & Racks

Braby (Frederick) & Co., Ltd.
Braime (T. F.) & Co., Ltd.
Lebus (Harris).
Kayser, Ellison & Co., Ltd.
Terry (Herbert) & Sons, Ltd.

Tool Pads (*See "Hand Tools, Carpenters'."*)

Tools, Hand (*See "Hand Tools."*)

Tools, Machine

(*See under respective Headings.*)

Tooth Powder (*See "Dentifrices."*)

Torches, Electric

(*See "Electric Flash Lamps."*)

Torpedo Boats

(*See "Destroyers and Torpedo Boats."*)

Torpedoes

Armstrong (Sir W. G.), Whitworth & Co., Ltd
Beardmore (William) & Co., Ltd.
Greenwood & Batley, Ltd.
Piggott (Thomas) & Co., Ltd.
Vickers, Ltd.
Whitehead Torpedo Works (Weymouth), Ltd.

Towels, Cotton

Austin (Charles E.) & Sons, Ltd.
Barlow & Jones, Ltd.
Brown (John S.) & Sons, Ltd.
County Down Weaving Co., Ltd.
Ewart (William) & Son, Ltd.
Finlay (James) & Co., Ltd.
Hoyle (Joshua) & Sons, Ltd.
Kershaw, Leese & Co., Ltd.
Nagersheth (M.) Sons.
Wilkinson (John).

Towels, Linen

Barlow & Jones, Ltd.
Brown (John S.) & Sons, Ltd.
County Down Weaving Co., Ltd.
M'Crum, Watson & Mercer, Ltd.

Towels, Sanitary

Maw (S.), Son & Sons, Ltd.
Mitchell (Andrew) & Co., Ltd.
Vernon & Co., Ltd.

Towers, Steel (Tank, Windmill, &c.)

Braby (Frederick) & Co., Ltd.
Braithwaite & Co.
Bullers, Ltd.
Clayton, Son & Co., Ltd.
Findlay (Alex.) & Co., Ltd.
Horsehay Co., Ltd.
MacLellan (P. & W), Ltd.
Matthews & Yates, Ltd.
Mechans, Ltd.
Morton (Francis) & Co., Ltd.
Motherwell Bridge Co., Ltd.
Newton, Chambers & Co., Ltd.
Orr, Watt & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Stewarts & Lloyds, Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Westwood (Joseph) & Co., Ltd.
Whessoe Foundry Co., Ltd.
Wood (Edward) & Co., Ltd.

Towers, Steel (Transmission & Wireless)

Bain (William) & Co., Ltd.
Braithwaite & Co.
Bullers, Ltd.
Findlay (Alex.) & Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Mechans, Ltd.
Morton (Francis) & Co., Ltd.
Motherwell Bridge Co., Ltd.
Orr, Watt & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Spencer (John), Ltd.
Stewarts & Lloyds, Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Westwood (Joseph) & Co., Ltd.
Wood (Edward) & Co., Ltd.

Towers, Water Cooling

Braby (Frederick) & Co., Ltd.
Carron Company.
Mechans, Ltd.
Motherwell Bridge Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Westwood (Joseph) & Co., Ltd.

Toys, Mechanical

Barringer, Wallis & Manners, Ltd.
British Metal & Toy Manufacturers, Ltd.
Meccano, Ltd.
Vickers, Ltd.

Toys, Various

British Metal & Toy Manufacturers, Ltd.
Central Aircraft Co.
Heywood (John), Ltd.
Meccano, Ltd.
Pascall (James), Ltd.
Vickers, Ltd.

Tracing Cloth

Hall (B. J.) & Co., Ltd.
Jones Bros., Ltd.
Norton & Gregory, Ltd.
Waterlow & Sons Ltd.

Traction Equipment, Electric

Blackwell (Robert W.) & Co., Ltd.
Callender's Cable & Construction Co., Ltd.
Electro-Mechanical Brake Co., Ltd.
English Electric Co., Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Spencer (John), Ltd.

Tractors & Traction Engines

Agricultural & General Engineers, Ltd.
Alldays & Onions, Ltd.
Austin Motor Co., Ltd.
Clayton & Shuttleworth, Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Garrett (Richard) & Sons, Ltd.
Marshall, Sons & Co., Ltd.
McLaren (J. & H.), Ltd.
Ransomes, Sims & Jefferies, Ltd.
Robey & Co., Ltd.
Ruston & Hornsby, Ltd.

Train Ferries

Fairfield Shipbuilding & Engineering Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Thornycroft (John I.) & Co., Ltd.
White (J. Samuel) & Co., Ltd.
Yarrow & Co., Ltd.

Tramcars *(See "Cars.")*

Tramways, Aerial Wire Rope *(See "Ropeways, Aerial.")*

Transformers, Electric, for Power & Lighting

British Electric Transformer Co., Ltd.
Brush Electrical Engineering Co., Ltd.
Bulpitt & Sons, Ltd.
Edison Swan Electric Co., Ltd.
Electric Construction Co., Ltd.
English Electric Co., Ltd.
Ferranti, Ltd.
General Electric Co., Ltd.
Johnson & Phillips, Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Sandycroft, Ltd.
Sterling Telephone & Electric Co., Ltd.

Transmission Gear, Oil

Greenwood & Batley, Ltd.
Vickers, Ltd.

Transmission Lines, Electric

Blackwell (Robert W.) & Co., Ltd.
British Insulated & Helsby Cables, Ltd.
Bullers, Ltd.
Callender's Cable & Construction Co., Ltd.
English Electric Co., Ltd.
Johnson & Phillips, Ltd.
Metropolitan-Vickers Electrical Co., Ltd.

Traps, Game, Rat, &c.

Greener (W. W.), Ltd.

Traversers

Armstrongs & Main, Ltd.
Blackwell (Robt. W.) & Co., Ltd.
Craven Bros. (Manchester), Ltd.
Glenfield & Kennedy, Ltd.
Holt & Willetts.
Patent Shaft & Axletree Co., Ltd.
Ransomes & Rapier, Ltd.
Stothert & Pitt, Ltd.

Treacle

Globe Refining Co., Ltd.
Walker (John) & Co.

Tree Pruners

Mountford (Fredk.) (Birmingham), Ltd.

Trellis *(See "Wire Goods.")*

Trommels *(See "Mining Machinery.")*

Troughs, Animal Feeding (Cast Iron)

Carron Company.
Piggott (Thomas) & Co., Ltd.

Troughs, Animal Feeding (Wrought) *(See "Tanks.")*

Trouserings

Camrass (S.) & Sons, Ltd.
Hudson, Sykes & Bousfield, Ltd.
Salt (Sir Titus), Bart., Sons & Co., Ltd.
Thornton, Marsden & Co.
Wilkinson (John).
Yates (W. E.), Ltd.

Trowels *(See "Hand Tools.")*

Trucks & Wagons, Road Traction

Agricultural & General Engineers, Ltd.
Bristol Wagon & Carriage Works Co., Ltd.
Clayton & Shuttleworth, Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Hill (J. & P.).
Hurst, Nelson & Co., Ltd.
Marshall, Sons & Co., Ltd.
Maudslay Motor Co., Ltd.
McLaren (J. & H.), Ltd.
Ruston & Hornsby, Ltd.
Sentinel Wagon Works (1920), Ltd.

Trucks, Factory, Mining, &c.

Agricultural & General Engineers, Ltd.
Alldays & Onions, Ltd.
Bain (William) & Co., Ltd.
Braby (Frederick) & Co., Ltd.
Bristol Wagon & Carriage Works Co., Ltd.
English Electric Co., Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Greenwood & Batley, Ltd.
Hadfields, Ltd.
Head, Wrightson & Co., Ltd.
Holman Bros., Ltd.
Hudson (Robert), Ltd.
Hurst, Nelson & Co., Ltd.
Mechans, Ltd.
Sandycroft, Ltd.
Tees Side Bridge & Engineering Works, Ltd.

Trucks (Platform), Electric

Greenwood & Batley, Ltd.
Hurst, Nelson & Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Ransomes, Sims & Jefferies, Ltd.
Vickers, Ltd.

Trucks, Railway *(See "Railway, etc.")*

Trunks & Bags, Fibre, &c.

Brooks (J. B.) & Co., Ltd.
Finnigans, Ltd.
Hepburn, Gale & Ross, Ltd.

Trunks & Bags, Leather

Brooks (J. B.) & Co., Ltd.
Finnigans, Ltd.
Harrod's, Ltd.
Hepburn, Gale & Ross, Ltd.

Trunks, Metal

Finnigans, Ltd.

Tubbing, Shaft

Braithwaite & Co.
Clay Cross Co., Ltd.
Cochrane & Co. (Woodside), Ltd.
Head, Wrightson & Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Sheepbridge Coal & Iron Co., Ltd.
Staveley Coal & Iron Co., Ltd.
Whessoe Foundry Co., Ltd.

Tube & Pipe Fittings

Audley Engineering Co., Ltd.
Brightside Foundry & Engineering Co., Ltd.
British Mannesmann Tube Co., Ltd.
Liverpool Refrigeration Co., Ltd.
Mechans, Ltd.
Russell (John) & Co., Ltd.
Spencer (John), Ltd.
Stewarts & Lloyds, Ltd.
Yorkshire Copper Works, Ltd.

Tube Brushes (Boiler)

(See "Brushes, Wire.")

Tube Expanders

Beyer, Peacock & Co., Ltd.
Greenwood & Batley, Ltd.
Stewarts & Lloyds, Ltd.
Yarrow & Co., Ltd.
Youngs.

Tube-making Machinery

Accles & Pollock, Ltd.
Fielding & Platt, Ltd.
Tubes, Ltd.
Vickers, Ltd.

Tubes, Aluminium

British Aluminium Co., Ltd.
Broughton Copper Co., Ltd.
Joseph (N. C.).
Muntz's Metal Co., Ltd.
Vickers, Ltd.

Tubes, Boiler (Brass & Copper)

Bayliss (Wm.), Ltd.
Birmingham Pottery & Metal Co., Ltd.
Blackwell (Robert W.) & Co., Ltd.
Bolton (Thomas) & Sons, Ltd.
Booth (James) & Co. (1915), Ltd.
Broughton Copper Co., Ltd.
Clifford (Charles) & Son, Ltd.
Earle, Bourne & Co., Ltd.
Elliott's Metal Co., Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Muntz's Metal Co., Ltd.
North British Locomotive Co., Ltd.
Vickers, Ltd.
Vivian & Sons, Ltd.
White (J. Samuel) & Co., Ltd.
Yorkshire Copper Works, Ltd.

Tubes, Boiler (Iron & Steel)

Blackwell (Robert W.) & Co., Ltd.
Beardmore (William) & Co., Ltd.
British Mannesmann Tube Co., Ltd.
Chesterfield Tube Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Howell & Co., Ltd.
North British Locomotive Co., Ltd.
Russell (John) & Co., Ltd.
Spencer (John), Ltd.
Stewarts & Lloyds, Ltd.
Tubes, Ltd.
Weldless Steel Tube Co., Ltd.
White (J. Samuel) & Co., Ltd.

Tubes, Boring

British Mannesmann Tube Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Russell (John) & Co., Ltd.
Spencer (John), Ltd.
Stewarts & Lloyds, Ltd.
Weldless Steel Tube Co., Ltd.

Tubes, Brass Cased

Bayliss (William), Ltd.
Britannia Tube Co., Ltd.
Earle, Bourne & Co., Ltd.
Stewarts & Lloyds, Ltd.

Tubes, Brass & Copper

Bayliss (William), Ltd.
Benton & Stone, Ltd.
Birmingham Battery & Metal Co., Ltd.
Bolton (Thomas) & Sons, Ltd.
Booth (James) & Co. (1915), Ltd.
Broughton Copper Co., Ltd.
Clifford (Charles) & Son, Ltd.
Delta Metal Co., Ltd.
Earle, Bourne & Co., Ltd.
Elliott's Metal Co., Ltd.
Hall (J. & E.), Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Laing (Sir James) & Sons, Ltd.
Muntz's Metal Co., Ltd.
Stone (J.) & Co., Ltd.
United Brassfounders & Engineers, Ltd.
Vickers, Ltd.
Vivian & Sons, Ltd.
Vivian (H. H.) & Co., Ltd.
Yorkshire Copper Works, Ltd.

Tubes, Collapsible (Metal)

Betts & Co., Ltd.
Greenwood & Batley, Ltd.

Tubes, Glass

British Glass Industries, Ltd.

Tubes, Speaking

Mechans, Ltd.

Tubes, Steel

Bayliss (William), Ltd.
Beardmore (William) & Co., Ltd.
Boving & Co., Ltd.
Braby (Frederick) & Co., Ltd.
Britannia Tube Co., Ltd.
British Mannesmann Tube Co., Ltd.
Central Aircraft Co.
Chesterfield Tube Co., Ltd.
Clayton, Son & Co., Ltd.
District Iron & Steel Co., Ltd.
Ebbw Vale Steel, Iron & Coal Co., Ltd
Hall (J. & E.), Ltd.
Ludlow Bros. (1913), Ltd.
Mechans, Ltd.
Piggott (Thomas) & Co., Ltd.
Projectile & Engineering Co., Ltd.
Raleigh Cycle Co., Ltd.
Russell (John) & Co., Ltd.
Spencer (John), Ltd.
Stewarts & Lloyds, Ltd.
Tubes, Ltd.
Vickers, Ltd.
Weldless Steel Tube Co., Ltd.
Whessoe Foundry Co., Ltd.

Tubes, Weldless Steel

Accles & Pollock, Ltd.
Blackwell (Robert W.) & Co., Ltd.
British Mannesmann Tube Co., Ltd.
Central Aircraft Co.
Ebbw Vale Steel, Iron & Coal Co., Ltd.
Howell & Co., Ltd.
Russell (John) & Co., Ltd.
Stewarts & Lloyds, Ltd.
Sun Cycle & Fittings Co., Ltd
Tubes, Ltd.
Vickers, Ltd.
Weldless Steel Tube Co., Ltd.

Tubes, Wrought Iron

Braby (Frederick) & Co., Ltd.
Clayton, Son & Co., Ltd.
Hall (J. & E.), Ltd.
Howell & Co., Ltd.
Liverpool Refrigeration Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Russell (John) & Co., Ltd.
Spencer (John), Ltd.
Stewarts & Lloyds, Ltd.

Tubing, Flexible

Bell's United Asbestos Co., Ltd.
Blackwell (Robert W.) & Co., Ltd.
British Oxygen Co., Ltd.

Tubing & Rod, Glass

British Glass Industries, Ltd.

Tubing, Rubber *(See "Rubber Tubing.")*

Tug-Boats

Fairfield Shipbuilding & Engineering Co., Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Short Bros. (Rochester & Bedford), Ltd.
Thornycroft (John I.) & Co., Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.
Yarrow & Co., Ltd.

Tungsten

Duram, Ltd.
Explosives Trades, Ltd.
High Speed Steel Alloys, Ltd.
Johnson, Matthey & Co., Ltd.
May & Baker, Ltd.
Murex Co., Ltd.

Tunnel Segments

Head, Wrightson & Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Markham & Co., Ltd.
Newton, Chambers & Co., Ltd.
Staveley Coal & Iron Co., Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Whessoe Foundry Co., Ltd.

Turbine Parts & Accessories

Allen (W. H.), Sons & Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Beardmore (William) & Co., Ltd.
Bolton (Thomas) & Sons, Ltd.
Boving & Co., Ltd.
English Electric Co., Ltd.
General Electric Co., Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Jonas & Colver, Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Parsons (C. A.) & Co., Ltd.
Parsons Marine Steam Turbine Co., Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.

Turbines, Steam (Land)

Allen (W. H.), Sons & Co., Ltd.
Beardmore (William) & Co., Ltd.
Brush Electrical Engineering Co., Ltd.
English Electric Co., Ltd.
Greenwood & Batley, Ltd.
Gwynnes, Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Parsons (C. A.) & Co., Ltd.
Sturtevant Engineering Co., Ltd.
White (J. Samuel) & Co., Ltd.
Yarrow & Co., Ltd.

Turbines, Steam (Marine)

Allen (W. H.), Sons & Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Beardmore (William) & Co., Ltd.
Fairfield Shipbuilding & Engineering Co., Ltd
General Electric Co., Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
North British Diesel Engine Works, Ltd.
North Eastern Marine Engineering Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Parsons (C. A.) & Co., Ltd.
Parsons Marine Steam Turbine Co., Ltd.
Thornycroft (John I.) & Co., Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.
Yarrow & Co., Ltd.

Turbines, Water

Beardmore (William) & Co., Ltd.
Boving & Co., Ltd.
English Electric Co., Ltd.
Vickers, Ltd.

Turbo Exhausters & Blowers

Donkin (Bryan) & Co., Ltd.
General Electric Co., Ltd.
Greenwood & Batley, Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Musgrave & Co., Ltd.
Parsons (C. A.) & Co., Ltd.
Sturtevant Engineering Co., Ltd.
Thwaites Bros., Ltd.
Vickers, Ltd.

Turbo-Generators

Allen (W. H.), Sons & Co., Ltd.
Brush Electrical Engineering Co., Ltd.
English Electric Co., Ltd.
General Electric Co., Ltd.
Greenwood & Batley, Ltd.
Mather & Platt, Ltd.
Metropolitan-Vickers Electrical Co., Ltd.
Parsons (C. A.) & Co., Ltd.

Turfing Irons (*See "Hand Tools, Garden."*)

Turnscrew (*See "Screwdrivers."*)

Turn Tables (Railway)

Armstrongs & Main, Ltd.
Bain (William) & Co., Ltd.
Braithwaite & Co.
Cleveland Bridge & Engineering Co., Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Horsehay Co., Ltd.
Hudson (Robert), Ltd.
Hurst, Nelson & Co., Ltd.
Kerr, Stuart & Co., Ltd.
MacLellan (P. & W.), Ltd.
Metropolitan Carriage, Wagon & Finance Co., Ltd.
Motherwell Bridge Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Ransomes & Rapier, Ltd.
Summerson (Thomas) & Sons, Ltd.
Tees Side Bridge & Engineering Works, Ltd.
Whessoe Foundry Co., Ltd.

Turpentine

Butler (William) & Co. (Bristol), Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
Rose (Sir W. A.) & Co., Ltd.
Thornley (Samuel), Ltd.

Turpentine Substitute

Banner (Samuel) & Co., Ltd.
Butler (William) & Co. (Bristol), Ltd.
Gas Lighting Improvement Co., Ltd.
International Paint & Compositions Co., Ltd.
Leitch (John W.) & Co.
Major & Co., Ltd.
Rose (Sir W. A.) & Co., Ltd.

Tweezers

Terry (Herbert) & Sons, Ltd.

Twine, Binder

Dixon & Corbett & R. S. Newall & Co., Ltd.
Haggie (R. Hood) & Son, Ltd.
Kenyon (Wm.) & Sons, Ltd.
Wright (John & Edwin), Ltd.

Twine, String, &c.

Dixon & Corbett & R. S. Newall & Co., Ltd.
Ewart (William) & Son, Ltd.
Kenyon (Wm.) & Sons, Ltd.
Linen Thread Co., Ltd. (The)
Piggott Bros. & Co., Ltd.
Wright (John & Edwin), Ltd.

Type-metal

Capper Pass & Sons, Ltd.
Cookson & Co., Ltd.
McKechnie Bros., Ltd.

Type, Metal

Sale (H. B.), Ltd.
Waterlow & Sons Ltd.

Type, Rubber

Sale (H. B.), Ltd.
Warne (William) & Co., Ltd.

Type-setting Machines

Lanston Monotype Corporation, Ltd.

Typewriting Machines & Accessories

Barlock Typewriter Co., Ltd.
Vickers, Ltd.

Tyres, Rail & Tram

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Beardmore (Wm.) & Co., Ltd.
Bessemer (Henry) & Co., Ltd.
Birmingham Railway Carriage & Wagon Co., Ltd.
Blackwell (Robert W.) & Co., Ltd.
Blaenavon Co., Ltd.
Brown Bayley's Steel Works, Ltd.
Brown (John) & Co., Ltd.
Darlington Forge, Ltd.
Firth (Thos.) & Sons, Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Fox (Samuel) & Co., Ltd.
Hadfields, Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Hill (J. & P.).
Hudson (Robert), Ltd.
Metropolitan Carriage, Wagon & Finance Co., Ltd.
Monk Bridge Iron & Steel Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Steel, Peech & Tozer, Ltd.
Taylor Bros. & Co., Ltd.
Vickers, Ltd.
Workington Iron & Steel Co., Ltd.

Tyres & Tubes (Rubber), & Accessories

Avon India Rubber Co., Ltd.
Bates (W. & A.), Ltd.
Connolly (J. W. & T.), Ltd.
Dunlop Rubber Co., Ltd.
Fabricless Products, Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Macintosh (Chas.) & Co., Ltd.
Moseley (David) & Sons, Ltd.
North British Rubber Co., Ltd.
Palmer Tyre, Ltd.
Spencer (George), Moulton & Co., Ltd.
Wood-Milne, Ltd.

U

Ultramarine
Rose (Sir W. A.) & Co., Ltd.

Umbrella & Parasol Frames & Handles
Fox (Samuel) & Co., Ltd.
Wright, Bindley & Gell, Ltd.

Umbrella Stands
Birch (William), Ltd.
Carron Company.
Grahame-White Co., Ltd.

Underwear, Knitted
Ashford Underwear Co., Ltd.
Atkins Bros.
Buckler (William) & Co., Ltd.
Corah (N.) & Sons.
Davis (Samuel) & Sons.
Devas, Routledge & Co., Ltd.
Hearth (James) & Co.
Moore, Eady & Murcott Goode, Ltd.
Neckwear, Ltd.
Simpkin, Son & Emery.
Spencer (George) & Co.
United Turkey Red Co., Ltd.
Wardle & Davenport, Ltd.
Wolsey, Ltd.

Underwear, Ladies' Lingerie
Bayer (Charles) & Co., Ltd.
Davis (Samuel) & Sons.
Hearth (James) & Co.
Neckwear, Ltd.
Wolsey, Ltd.

Underwear, Woollen
Ashford Underwear Co., Ltd
Atkins Bros.
Davis (Samuel) & Sons.
Hearth (James) & Co.
Howe (W. & H.).
Moore, Eady & Murcott Goode, Ltd
Neckwear, Ltd.
Rowley (R.) & Co., Ltd.
Simpkin, Son & Emery.
Turner & Jarvis, Ltd.
United Turkey Red Co., Ltd.
Wolsey, Ltd.

Upholsterers' Tools (*See "Hand Tools."*)

Upholstery Fabrics (*See "Tapestry, etc."*)

Uranium Salts
Blackwell (George G.), Sons & Co., Ltd.
Johnson, Matthey & Co., Ltd.
May & Baker, Ltd.

Urinals, Earthenware & Fireclay
Doulton & Co., Ltd.
Jennings (George), Ltd.

Urinals, Metal
Carron Company.
Jennings (George), Ltd.
National Galvanizers, Ltd.
Stone (J.) & Co., Ltd.

Urns
Bulpitt & Sons, Ltd.
Collyer (John) & Co., Ltd.

V

Vaccines
Evans, Sons, Lescher & Webb, Ltd.

Vacuum Cleaning Apparatus
Matthews & Yates, Ltd.
Musgrave & Co., Ltd.
Sturtevant Engineering Co., Ltd.

Valerianates
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Valves, Acid
Bell's United Asbestos Co., Ltd.
Blakeborough (J.) & Sons, Ltd.
Lye (T.) & Sons.

Valves, Air
Audley Engineering Co., Ltd.
Blackwell (Robert W.) & Co., Ltd.
Blakeborough (J.) & Sons, Ltd.
British Oxygen Co., Ltd.
Glenfield & Kennedy, Ltd.
Holman Bros., Ltd.
Hopkinson (J.) & Co., Ltd.
Stone (J.) & Co., Ltd.
United Brassfounders & Engineers, Ltd.

Valves, Hydraulic (*See "Hydraulic, etc."*)

Valves, Safety
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Blackwell (Robert W.) & Co., Ltd.
Blakeborough (J.) & Sons, Ltd.
Dixon (S.) & Sons, Ltd.
Glenfield & Kennedy, Ltd.
Hopkinson (J.) & Co., Ltd.
Stone (J.) & Co., Ltd.
United Brassfounders & Engineers, Ltd.

Valves, Sluice
Audley Engineering Co., Ltd.
Bell's United Asbestos Co., Ltd.
Blakeborough (J.) & Sons, Ltd.
Brightside Foundry & Engineering Co., Ltd.
Glenfield & Kennedy, Ltd.
Head, Wrightson & Co., Ltd.
Russell (John) & Co., Ltd.
Stone (J.) & Co., Ltd.

Valves, Steam, Gas & Water
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Audley Engineering Co., Ltd.
Bell's United Asbestos Co., Ltd.
Blackwell (Robert W.) & Co., Ltd.
Blakeborough (J.) & Sons, Ltd.
British Oxygen Co., Ltd.
Dixon (S.) & Son, Ltd.
Donkin (Bryan) & Co., Ltd.
Glenfield & Kennedy, Ltd.
Glover & Main, Ltd.
Holmes (W. C.) & Co., Ltd.
Hopkinson (J.) & Co., Ltd.
Horsehay Co., Ltd.
Horseley Bridge & Engineering Co., Ltd.
Jennings (George), Ltd.
Laing (Sir James) & Sons, Ltd.
Newton, Chambers & Co., Ltd.
North Eastern Marine Engineering Co., Ltd.

Valves, Steam, Gas & Water—*continued.*

Russell (John) & Co., Ltd.
Stone (J.) & Co., Ltd.
United Brassfounders & Engineers, Ltd.
Vickers, Ltd.

Vanes, Weather

Harvey (G. A.) & Co. (London), Ltd.

Vanillin

Bush (W. J.) & Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.

Varnishes & Enamels

Banner (Samuel) & Co., Ltd.
Berger (Lewis) & Sons, Ltd.
Blackwell (Robert W.) & Co., Ltd.
Clark (Robert Ingham) & Co., Ltd.
Docker Bros., Ltd.
Explosives Trades, Ltd.
International Paint & Compositions Co., Ltd.
Jenson & Nicholson, Ltd.
Major & Co., Ltd
Paton, Calvert & Co., Ltd.
Rose (Sir W. A.) & Co., Ltd.
Thornley (Samuel), Ltd.
United Alkali Co., Ltd.

Varnish Makers' Chemicals

Brotherton & Co., Ltd.
May & Baker Ltd.

Vats

Coleman & Appleby, Ltd.
Lowrie (W. P.) & Co., Ltd.
Mechans, Ltd.

Vee Blocks

Hooker (Peter), Ltd.
Jones (A. A.) & Shipman, Ltd.
Mountford (Fredk.) (Birmingham), Ltd.

Vegetables, Tinned & Bottled

Crosse & Blackwell (Mfg. Co.), Ltd.
Maconochie Bros., Ltd.

Velvets & Velveteens, Cotton

Faire Bros. & Co., Ltd.
Hollins Mill Co., Ltd.
Jones Bros., Ltd.
Kershaw, Leese & Co., Ltd.
Lister & Co., Ltd.
Tootal Broadhurst, Lee Co., Ltd.
Wilkinson (John).

Velvets, Silk

Foster (John) & Son, Ltd.
Lister & Co., Ltd.

Ventilators

Alldays & Onions, Ltd.
Armstrong & Main, Ltd.
Braby (Frederick) & Co., Ltd.
Carron Company.
Davidson & Co., Ltd.
Glenfield & Kennedy, Ltd.
Harvey (G. A.) & Co. (London), Ltd.
Ludlow Bros. (1913), Ltd.
Matthews & Yates, Ltd.
Mechans, Ltd.
Musgrave & Co., Ltd.
National Galvanizers, Ltd.

Ventilators, Electric (*See "Fans."*)

Ventilators, Roof & Wall

Alldays & Onions, Ltd.
Armstrongs & Main, Ltd.
Braby (Frederick) & Co., Ltd.
Carron Company.
Harvey (G. A.) & Co. (London), Ltd.
Musgrave & Co., Ltd.

Ventilators, Ships'

Braby (Frederick) & Co., Ltd.
Carron Company.
Harvey (G. A.) & Co. (London), Ltd.
Matthews & Yates, Ltd.
Mechans, Ltd.
National Galvanizers, Ltd.
North Eastern Marine Engineering Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Stone (J.) & Co., Ltd.
Tees Side Bridge & Engineering Works, Ltd
White (J. Samuel) & Co., Ltd.

Vermilion

Berger (Lewis) & Sons, Ltd.
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Veterinary Compounds

British Drug Houses, Ltd.
Cooper (William) & Nephews.
Pearson (William), Ltd.

Vices, Bench

Alldays & Onions, Ltd.
Cotterill (F. W.), Ltd.
Hooker (Peter), Ltd.
Mountford (Fredk.) (Birmingham), Ltd.

Vices, Hand & Table

Alldays & Onions, Ltd.
Hooker (Peter), Ltd.

Vices, Leg and Staple

Alldays & Onions, Ltd.

Vices, Machine

Alldays & Onions, Ltd.
Associated British Machine Tool Makers, Ltd.
Jones (A. A.) & Shipman, Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
Selson Engineering Co., Ltd.

Vices, Wire Straining

Smith (Thomas) & Sons, of Saltley, Ltd.

Vinegar

Crosse & Blackwell (Mfg. Co.), Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Maconochie Bros., Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Voltmeters (*See "Instruments, Electrical."*)

Vulcanite

Blackwell (Robert W.) & Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Macintosh (Chas.) & Co., Ltd.
Major & Co., Ltd.
Moseley (David) & Sons, Ltd.
North British Rubber Co., Ltd.
Wood-Milne, Ltd.

Vulcanite Goods (*See "Rubber Goods, Hard."*)

Vulcanized Fibre
(*See "Insulating Materials."*)

W

Wadding

Imperial Patent Wadding Co., Ltd.
Vernon & Co., Ltd.

Wagons (*See "Carriages, Carts, Wagons, etc.," "Motor Cars," "Lorries" & "Railway Carriages & Wagons."*)

Wagons, Tip (*See "Trucks."*)

Wallpaper

Spicer (James) & Sons, Ltd.

Warships

Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Beardmore (William) & Co., Ltd.
Brown (John) & Co., Ltd.
Fairfield Shipbuilding & Engineering Co., Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Thornycroft (John I.) & Co., Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.
Yarrow & Co., Ltd.

Washer Cutters (*See "Hand Tools, Sundry."*)

Washers, Brass & Copper, &c.

Brockhouse (J.) & Co., Ltd.
Davis & Timmins, Ltd.
Explosives Trades, Ltd.
Guest, Keen & Nettlefolds, Ltd.
Harrison & Co.
Mountford (Fredk.) (Birmingham), Ltd.
Smith (John), Ltd.
Stone (J.) & Co., Ltd.
Suckling, Ltd.
Terry (Herbert) & Sons, Ltd.
United Brassfounders & Engineers, Ltd.
Warne, Wright & Rowland, Ltd.

Washers, Fibre & Asbestos

Bell's United Asbestos Co., Ltd.
Blackwell (Robert W.) & Co., Ltd.
Brockhouse (J.) & Co., Ltd.
Smith (John), Ltd.
Snowdon, Sons & Co., Ltd.

Washers, Iron & Steel

Braby (Frederick) & Co., Ltd.
Brockhouse (J.) & Co., Ltd.
Cotterill (F. W.), Ltd.
Davis & Timmins, Ltd.
Guest, Keen & Nettlefolds, Ltd.
Harvey (G. A.) & Co. (London), Ltd.
Mountford (Fredk.) (Birmingham), Ltd.
Sanderson Bros. & Newbould, Ltd.
Smith (John), Ltd.
Suckling, Ltd.
Terry (Herbert) & Sons, Ltd.
Warne, Wright & Rowland, Ltd.

Washers, Leather

Armstrongs & Main, Ltd.
Brockhouse (J.) & Co., Ltd.

Washers, Rubber

Avon India Rubber Co., Ltd.
Bates (W. & A.), Ltd.
Brockhouse (J.) & Co., Ltd.
Cow (P. B.) & Co., Ltd.
Greengate & Irwell Rubber Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Ingram (J. G.) & Son, Ltd.
Jennings (George), Ltd.
Macintosh (Chas.) & Co., Ltd.
Moseley (David) & Sons, Ltd.
North British Rubber Co., Ltd.
Spencer (George), Moulton & Co., Ltd.
Vickers, Ltd.
Warne (William) & Co., Ltd.
Wood-Milne, Ltd.

Washers, Spring

Brockhouse (J.) & Co., Ltd.
Spencer (John) & Sons, Ltd.
Terry (Herbert) & Sons, Ltd.

Washing Machinery
(*See "Laundry Machinery."*)

Washing Machines, Domestic

Ashwell & Nesbit, Ltd.
Brightside Foundry & Engineering Co., Ltd.
Vickers, Ltd.

Watches

Dennison's Watch Case Co., Ltd.
Smith (S.) & Sons (Motor Accessories), Ltd.

Watchmakers' Tools
(*See "Hand Tools, Watchmakers'."*)

Water Carts

Agricultural & General Engineers, Ltd.
Braby (Frederick) & Co., Ltd.
Bristol Wagon & Carriage Works Co., Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Marshall, Sons & Co., Ltd.

Water Closets (*See "Sanitary Fittings."*)

Water Cranes (*See "Stand Pipes, Railway."*)

Water Heating & Cooling Plant
(*See "Air and Water Heaters and Coolers."*)

Water Mains

British Mannesmann Tube Co., Ltd.
Clay Cross Co., Ltd.
Clayton, Son & Co., Ltd.
Mechans, Ltd.
Newton, Chambers & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Sheepbridge Coal & Iron Co., Ltd.
Stanton Ironworks Co., Ltd.
Staveley Coal & Iron Co., Ltd.
Stewarts & Lloyds, Ltd.

Watering Cans (*See "Galvanized Goods" and "Hollow-ware."*)

Waterproof Cloth

Bright (John) & Bros., Ltd.
Cliffe Mills Co., Ltd.
Cow (P. B.) & Co.
Empsall & Firth, Ltd.
Garnett (G.) & Sons, Ltd.

Waterproof Cloths—*continued.*

Greengate & Irwell Rubber Co., Ltd.
Halliday (John) & Sons.
Haworth (Richard) & Co., Ltd.
Horrockses, Crewdson & Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Ingram (J. G.) & Son, Ltd.
Lichenstein (J. & E.) (Jeleo), Ltd.
Longbottom (H.) & Co., Ltd.
Macintosh (Chas.) & Co., Ltd.
Mandleberg (J.) & Co., Ltd.
Mitchell (Andrew) & Co., Ltd.
Moseley (David) & Sons, Ltd.
North British Rubber Co., Ltd.
Premier Waterproof & Rubber Co., Ltd.
Stott (James), Ltd.
Sutcliffe & Co.
Thornton, Marsden & Co.
Tootal Broadhurst, Lee Co., Ltd.
Vickers, Ltd.
Warne (William) & Co., Ltd.

Waterproof Garments

Barran (John) & Sons, Ltd.
Birbaum (B.) & Son, Ltd.
Cow (P. B.) & Co., Ltd.
Greengate & Irwell Rubber Co., Ltd.
Holloway Bros., Ltd.
Hope Manufacturing Co., Ltd.
Lichenstein (J. & E.) (Jeleo), Ltd.
Macintosh (Chas.) & Co., Ltd.
Mandleberg (J.) & Co., Ltd.
Moseley (David) & Sons, Ltd.
North British Rubber Co., Ltd.
Premier Waterproof & Rubber Co., Ltd.
Slazengers, Ltd.
Vickers, Ltd.

Waterproofs (Rubberproofed)

Cow (P. B.) & Co., Ltd.
Greengate & Irwell Rubber Co., Ltd.
Hope Manufacturing Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Lichenstein (J. & E.) (Jeleo), Ltd.
Macintosh (Chas.) & Co., Ltd.
Mandleberg (J.) & Co., Ltd.
Moseley (David) & Sons, Ltd.
North British Rubber Co., Ltd.
Premier Waterproof & Rubber Co., Ltd.
Slazengers, Ltd.
Vickers, Ltd.

Waterproofs (Oilskins)

Piggott Bros. & Co., Ltd.
Vickers, Ltd.

Waterproofing Compounds

Brotherton & Co., Ltd.
Callender's Cable & Construction Co., Ltd.
Clark (Robert Ingham) & Co., Ltd.
May & Baker, Ltd.
Moseley (David) & Sons, Ltd.
United Alkali Co., Ltd.

Water Softening & Purifying Materials

Ashwell & Nesbit, Ltd.
Castner-Kellner Alkali Co., Ltd.
Spence (Peter) & Sons, Ltd.

Water Softening & Purifying Plant

Ashwell & Nesbit, Ltd.
Blakeborough (J.) & Sons, Ltd.
Brightside Foundry & Engineering Co., Ltd.
Jennings (George), Ltd.
Matthews & Yates, Ltd.
Whessoe Foundry Co., Ltd.

Waterworks Plant

Blakeborough (J.) & Sons, Ltd
Boving & Co., Ltd.
Glenfield & Kennedy, Ltd.
Hardy Patent Pick Co., Ltd.
Kent (George), Ltd.
Markham & Co., Ltd.
Marshall, Sons & Co., Ltd.
Piggott (Thomas) & Co., Ltd.
Rees Roturbo Manufacturing Co., Ltd.
Sandycroft, Ltd.
Stone (J.) & Co., Ltd.

Wax, Bees

Evans, Sons, Lescher & Webb, Ltd.

Wax, Paraffin

Anglo-Persian Oil Co., Ltd.
Asiatic Petroleum Co., Ltd.
Evans, Sons, Lescher & Webb, Ltd.

Wax, Sealing

Evans, Sons, Lescher & Webb, Ltd.
Waterlow & Sons Ltd.

Weaving Machinery

(*See "Textile Machinery."*)

Web Equipment, Naval & Military

Finnigans, Ltd.
Mills Equipment Co., Ltd.
Morgan, Crossley & Co., Ltd.
Smith (John), Ltd.
Stott (James), Ltd.

Webbing

Brough, Nicholson & Hall, Ltd.
Faire Bros. & Co., Ltd.
Morgan, Crossley & Co., Ltd.
Piggott Bros. & Co., Ltd.
Stott (James), Ltd.

Wedges, Steel, Road Breaking

(*See "Picks, Pickaxes and Mattocks."*

Wedges, Steel, Wood Splitting

(*See "Axes."*)

Weed Killers

Boake (A.), Roberts & Co., Ltd.
Boots Pure Drug Co., Ltd.
Cooper (William) & Nephews.
Lawes' Chemical Manure Co., Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Weighing Machines & Appliances

Avery (W. & T.), Ltd.
Hodgson (William) & Sons (Weighing Machinists), Ltd.
Whessoe Foundry Co., Ltd.

Welding Compounds
Acetylene Corporation of Great Britain, Ltd.
British Oxygen Co., Ltd.
Explosives Trades, Ltd.

Welding Plant, Electric
(See "Electric Welding Apparatus.")

Welding Plant, Oxy-Acetylene & Acetylene
(See "Oxy-Acetylene Welding and Cutting Plant." and "Acetylene Welding Plant.")

Well-boring Plant
Hardy Patent Pick Co., Ltd.
Marshall, Sons & Co., Ltd.
Spencer (John), Ltd.
Stanton Ironworks, Ltd.
Wright (John & Edwin), Ltd.

Wheelbarrows *(See "Barrows.")*

Wheelers' Tools *(See "Hand Tools.")*

Wheels, Detachable, for Motor Cars
Ludlow Bros. (1913), Ltd.
Mechans, Ltd.
Rudge-Whitworth, Ltd.
Sankey (Joseph) & Sons, Ltd.

Wheels, Emery & Corundum
(See "Abrasive Wheels.")

Wheels, Fly
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Bayliss, Jones & Bayliss, Ltd.
Brightside Foundry & Engineering Co., Ltd.
Darlington Forge, Ltd. (The).
Fairbairn Lawson Combe Barbour, Ltd.
Hadfields, Ltd.
Markham & Co., Ltd.
Monometer Manufacturing Co. (1918), Ltd.
Newton, Chambers & Co., Ltd.
Partington Steel & Iron Co., Ltd.
Stanton Ironworks Co., Ltd.
Wigglesworth (Frank) & Co., Ltd.
Yates & Thom, Ltd.

Wheels, Gear *(See "Gear Wheels.")*

Wheels, Rail & Tram
Allen (Edgar) & Co., Ltd.
Armstrong (Sir W. G.), Whitworth & Co., Ltd.
Beardmore (William) & Co., Ltd.
Beyer, Peacock & Co., Ltd.
Birmingham Railway Carriage & Wagon Co., Ltd.
Blackwell (Robt. W.) & Co., Ltd.
Blaenavon Co., Ltd.
Bristol Wagon & Carriage Works Co., Ltd.
Darlington Forge, Ltd.
Firth (Thos.) & Sons, Ltd.
Fowler (John) & Co. (Leeds), Ltd.
Gloucester Railway Carriage & Wagon Co., Ltd.
Hadfields, Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Hill (J. & P.).
Holman Bros., Ltd.
Hudson (Robert), Ltd.
Hurst, Nelson & Co., Ltd.
Jessop (William) & Sons, Ltd.
Lloyd (F. H.) & Co., Ltd.
Metropolitan Carriage, Wagon & Finance Co., Ltd.
Monk Bridge Iron & Steel Co., Ltd.
North British Locomotive Co., Ltd.
Osborn (Samuel) & Co., Ltd.
Partington Steel & Iron Co., Ltd.
Patent Shaft & Axletree Co., Ltd.
Roberts (Charles) & Co., Ltd.
Taylor Bros. & Co., Ltd.
Vickers, Ltd.

Wheels, Sprocket
Allen (Edgar) & Co., Ltd.
Central Aircraft Co.
Hadfields, Ltd.
Osborn (Samuel) & Co., Ltd.
Partington Steel & Iron Co., Ltd.
Spencer (John) & Sons, Ltd.
Sturtevant Engineering Co., Ltd.

Wheels, Water
Boving & Co., Ltd.

Wheel-making Machinery
Craven Bros. (Manchester), Ltd.
Davy Bros., Ltd.
Hollins & Guest, Ltd.
Holroyd (John) & Co., Ltd.

Whiskies
Buchanan (James) & Co., Ltd.
Calder (James) & Co., Ltd.
Dewar (John) & Sons, Ltd.
Distillers' Co., Ltd.
Dunville & Co., Ltd.
Lowrie (W. P.) & Co., Ltd.
Maclachlan (G. & J.), Ltd.
Robertson (John) & Son, Ltd.
Walker (John) & Sons, Ltd.
Watson (James) & Co., Ltd.

Whistles, Steam
Bulpitt & Sons, Ltd.
Dixon (J.) & Son, Ltd.
Hopkinson (J.) & Co., Ltd.
Pulsometer Engineering Co., Ltd.
Stone (J.) & Co., Ltd.
United Brassfounders & Engineers, Ltd.

White Metal
(See "Alloys" and "Anti-Friction Metals.")

Whiting
British Portland Cement Manufacturers, Ltd.
Evans, Sons, Lescher & Webb, Ltd.

Whitewashing Machines
(See "Limewashing Machines.")

Wicks, Lamp & Candle
Morgan, Crossley & Co., Ltd.

Winches, Electric
Allen (W. H.), Sons & Co., Ltd.
Arrol (Sir William) & Co., Ltd.
British Steel Piling Co.
Clarke, Chapman & Co., Ltd.
English Electric Co., Ltd.
General Electric Co., Ltd.
Holman Bros., Ltd.
Holt & Willetts.
Markham & Co., Ltd.
Ransomes & Rapier, Ltd.
Sandycroft, Ltd.
Simon (Henry), Ltd.
Stothert & Pitt, Ltd.
Wild (M. B.) & Co., Ltd.

Winches, Hand

Alldays & Onions, Ltd.
Bullivant & Co., Ltd.
Carron Company.
Holt & Willetts.
Simon (Henry), Ltd.
Wild (M. B.) & Co., Ltd.
Youngs.

Winches, Hydraulic

Armstrongs & Main, Ltd.
Arrol (Sir William) & Sons, Ltd.
Berry (Henry) & Co., Ltd.
Fielding & Platt, Ltd.
Hollings & Guest, Ltd.
Holt & Willetts.
Wild (M. B.) & Co., Ltd.

Winches, Steam

British Steel Piling Co.
Bullivant & Co., Ltd.
Clarke, Chapman & Co., Ltd.
Cradley Boiler Co., Ltd.
Holman Bros., Ltd.
Markham & Co., Ltd.
Sandycroft, Ltd.
White (J. Samuel) & Co., Ltd.
Wild (M. B.) & Co., Ltd.

Winding Machinery

Bridge (David) & Co., Ltd.
British Steel Piling Co.
Carron Company.
Clarke, Chapman & Co., Ltd.
Hick, Hargreaves & Co., Ltd.
Holman Bros., Ltd.
Markham & Co., Ltd.
Ransomes, Sims & Jefferies, Ltd.
Robey & Co., Ltd.
Sandycroft, Ltd.
Wild (M. B.) & Co., Ltd.
Wright (John & Edwin), Ltd.

Winding Ropes (*See "Ropes, Steel."*)

Windlasses

Clarke, Chapman & Co., Ltd.
McLaren (J. & H.), Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.
Youngs.

Window Casements & Sashes

(*See "Sashes and Casements."*)

Wind Screens (Glass)

Bristol Wagon & Carriage Works Co., Ltd.
Harris & Sheldon, Ltd.
Pilkington Bros., Ltd.
Triplex Safety Glass Co., Ltd.

Wines

Chaplin (W. H.) & Co., Ltd.
Winox, Ltd.

Wire, Aluminium

Acetylene Corporation of Great Britain, Ltd.
Blackwell (Robert W.) & Co., Ltd.
British Aluminium Co., Ltd.
British Insulated & Helsby Cables, Ltd.
British Oxygen Co., Ltd.
Explosives Trades, Ltd.
Joseph (N. C.).
Stone (J.) & Co., Ltd.
Tayler (D. F.) & Co., Ltd.
Vickers, Ltd.

Wire, Brass & Copper

Acetylene Corporation of Great Britain, Ltd.
Birmingham Battery & Metal Co., Ltd.
Blackwell (Robert W.) & Co., Ltd.
Bolton (Thomas) & Sons, Ltd.
Booth (James) & Co. (1915), Ltd.
British Insulated & Helsby Cables, Ltd.
British Oxygen Co., Ltd.
Clifford (Charles) & Son, Ltd.
Delta Metal Co., Ltd.
Elliott's Metal Co., Ltd.
Explosives Trades, Ltd.
Johnson (Richard) & Nephew, Ltd.
London Electric Wire Co. & Smiths, Ltd.
McKechnie Bros., Ltd.
Stone (J.) & Co., Ltd.
Tayler (D. F.) & Co., Ltd.
Vivian (H. H.) & Co., Ltd.

Wire, Bronze

Acetylene Corporation of Great Britain, Ltd.
Blackwell (Robert W.) & Co., Ltd.
Bolton (Thomas) & Sons, Ltd.
Booth (James) & Co. (1915), Ltd.
British Insulated & Helsby Cables, Ltd.
British Oxygen Co., Ltd.
Clifford (Charles) & Son, Ltd.
Delta Metal Co., Ltd.
Explosives Trades, Ltd.
London Electric Wire Co. & Smiths, Ltd.
Phosphor Bronze Co., Ltd.
Stone (J.) & Co., Ltd.
Tayler (D. F.) & Co., Ltd.

Wire Cable (*See "Ropes, Steel."*)

Wire Cloth, Weaving & Gauze

Greening (N.) & Sons, Ltd.
Harvey (G. A.) & Co. (London), Ltd
Johnson (C. H.) & Sons, Ltd.

Wire, Electric

Blackwell (Robert W.) & C.., Ltd.
Bolton (Thomas) & Sons, Ltd.
British Aluminium Co., Ltd.
British Insulated & Helsby Cables, Ltd.
Callender's Cable & Construction Co., Ltd.
Duram, Ltd.
General Electric Co., Ltd.
Greengate & Irwell Rubber Co., Ltd.
Henley's (W. T.) Telegraph Works Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Johnson & Phillips, Ltd.
London Electric Wire Co. & Smiths, Ltd.
Macintosh (Chas.) & Co., Ltd.
Smith (Frederick) & Co. (Wire Manufacturers), Ltd.
Smith (John), Ltd.
Tayler (D. F.) & Co., Ltd.

Wire, Fencing & Barbed

Armstrongs & Main, Ltd.
Bain (William) & Co., Ltd.
Bayliss, Jones & Bayliss, Ltd.
Blackwell (Robert W.) & Co., Ltd.
British Reinforced Concrete Engineering Co., Ltd.
Dorman, Long & Co., Ltd.
Excelsior Wire Rope Co., Ltd.
Hill (J. C.) & Co., Ltd.
Johnson (Richard) & Nephew, Ltd.
Lysaght (John), Ltd.
Rylands Bros., Ltd.
Smith (Frederick) & Co., Wire Manufacturers, Ltd.
Smith (John), Ltd.

Wire, Fuse *(See "Fuse Wire.")*

Wire Goods, Various

Braby (Frederick) & Co., Ltd.
Excelsior Wire Rope Co., Ltd.
Greening (N.) & Sons, Ltd.
Johnson (C. H.) & Sons, Ltd.
Ludlow Bros. (1913), Ltd.
Newey Bros., Ltd.
Smith (John), Ltd.
Tayler (D. F.) & Co., Ltd.

Wire, High Tensile Steel

Bain (William) & Co., Ltd.
Blackwell (Robert W.) & Co., Ltd.
Doncaster Wire Co., Ltd.
Fox (Samuel) & Co., Ltd.
Johnson (Richard) & Nephew, Ltd.
Jonas & Colver, Ltd.
Kayser, Ellison & Co., Ltd.
Rylands Bros., Ltd.
Sanderson Bros. & Newbould, Ltd.
Smith (Frederick) & Co., Wire Manufacturers, Ltd.
Tayler (D. F.) & Co., Ltd.

Wire, Insulated

Blackwell (Robert W.) & Co., Ltd.
British Insulated & Helsby Cables, Ltd.
Callender's Cable & Construction Co., Ltd.
General Electric Co., Ltd.
Greengate & Irwell Rubber Co., Ltd.
Henley's (W. T.) Telegraph Works Co., Ltd.
India Rubber, Gutta Percha & Telegraph Works Co., Ltd.
Johnson & Phillips, Ltd.
London Electric Wire Co. & Smiths, Ltd.
Macintosh (Chas.) & Co., Ltd.
Yorkshire Cable Co., Ltd.

Wire, Iron & Steel

Bain (William) & Co., Ltd.
Blackwell (Robert W.) & Co., Ltd.
Doncaster Wire Co., Ltd.
Dorman, Long & Co., Ltd.
Excelsior Wire Rope Co., Ltd.
Fox (Samuel) & Co., Ltd.
Greening (N.) & Sons, Ltd.
Guest, Keen & Nettlefolds, Ltd.
Hill (J. C.) & Co., Ltd.
Johnson (Richard) & Nephew, Ltd.
Jonas & Colver, Ltd.
Kayser, Ellison & Co., Ltd.
Rylands Bros., Ltd.
Sanderson Bros. & Newbould, Ltd.
Smith (Frederick) & Co. (Wire Manufacturers), Ltd.
Smith (John), Ltd.
Tayler (D. F.) & Co., Ltd.
Wright, Bindley & Gell, Ltd.

Wire Netting

Bayliss, Jones & Bayliss, Ltd.
Braby (Frederick) & Co., Ltd.
Lysaght (John), Ltd.
Rylands Bros., Ltd.

Wire, Nickel

Blackwell (George G.), Sons & Co., Ltd.
Blackwell (Robert W.) & Co., Ltd.
Explosives Trades, Ltd.
Mond Nickel Co., Ltd.

Wire, Piano & Musical Instrument

Bolton (Thomas) & Sons, Ltd.
Doncaster Wire Co., Ltd.
Fox (Samuel) & Co., Ltd.
Johnson (Richard) & Nephew, Ltd.
Kayser, Ellison & Co., Ltd.
Smith (Frederick) & Co. (Wire Manufacturers), Ltd.
Tayler (D. F.) & Co., Ltd.

Wire, Pyrometry

Alldays & Onions, Ltd.
Johnson, Matthey & Co., Ltd.

Wire Rods

Andrew (Jno. Hy.) & Co., Ltd.
Bolton (Thomas) & Sons, Ltd.
British Aluminium Co., Ltd.
Cooke (William) & Co., Ltd.
Dorman, Long & Co., Ltd.
Fox (Samuel) & Co., Ltd.
Guest, Keen & Nettlefolds, Ltd.
Hill (J. C.) & Co., Ltd.
Johnson (Richard) & Nephew, Ltd.
London Electric Wire Co. & Smiths, Ltd.
Pearson & Knowles' Coal & Iron Co., Ltd.
Sanderson Bros. & Newbould, Ltd.
Smith (John), Ltd.
Wardsend Steel Co.

Wire-Rope Cutting Machines

Bullivant & Co., Ltd.
Hollings & Guest, Ltd.

Wire Ropes & Accessories

(See "Ropes, Steel.")

Wireless Apparatus & Materials

(See "Instruments, Telegraph (Wireless)," and "Instruments, Telephone (Wireless)."

Wood Distillers' Products

Boake (A.), Roberts & Co., Ltd.
Wilson Bros. Bobbin Co., Ltd.

Woodenware, Domestic

Birch (Wm.), Ltd.
Central Aircraft Co.
Lebus (Harris).
Remer (John) & Co., Ltd.

Woodenware, Sundry

Birch (William), Ltd.
Lebus (Harris).
Remer (John) & Co., Ltd.
Setten & Durward.
Vickers, Ltd.

Wood-Wool

Clay Cross Co., Ltd.
Lebus (Harris).
Remer (John) & Co., Ltd.
Staveley Coal & Iron Co., Ltd.

Wood-Wool Machinery

Haighs (Oldham), Ltd.

Woodworking Machinery

Associated British Machine Tool Makers, Ltd.
Aublet (Harry) & Co., Ltd.
Carron Company.
Holroyd (John) & Co., Ltd.
Projectile & Engineering Co., Ltd.

Wool Grease

Butler (William) & Co. (Bristol), Ltd.
Gaunt (Reuben) & Sons, Ltd.
Foster (John) & Son, Ltd.
Hess (A.) & Bro., Ltd.
Illingworth (Danl.) & Sons.
Morris (William) & Sons, Ltd.
Woolcombers, Ltd.

Wool Tops, Noils, &c.

Dawson (Joseph).
Foster (John) & Son, Ltd.
Gaunt (Reuben) & Sons, Ltd.
Illingworth (Danl.) & Sons.
Morris (William) & Sons, Ltd.
Salt (Sir Titus), Bart., Sons & Co., Ltd.
Smith, Bulmer & Co.
Watson Bros. & Co. (Kidderminster), Ltd.

Wool-combing

Dawson (Joseph).
Foster (John) & Son, Ltd.
Gaunt (Reuben) & Sons, Ltd.
Morris (William) & Sons, Ltd.
Salt (Sir Titus), Bart., Sons & Co., Ltd.
Smith, Bulmer & Co.
Woolcombers, Ltd.

Woollen Fabrics

Cliffe Mills Co., Ltd.
Day (Mark).
Drey, Simpson & Co., Ltd.
Elmfield Mill Manufacturing Co.
Emsley (J.) & Co., Ltd.
Firth (T. F.) & Sons, Ltd.
Fur Fabric Co., Ltd.
Garnett (G.) & Sons, Ltd.
Gaunt (Reuben) & Sons, Ltd.
Hudson, Sykes & Bousfield, Ltd.
Lupton (William) & Co.
Neckwear, Ltd.
Pepper, Lee & Co., Ltd.
Porritts & Spencer, Ltd.
Salt (Sir Titus), Bart., Sons & Co., Ltd.
Sutcliffe & Co.
Thornton, Marsden & Co.
Tootal Broadhurst, Lee Co., Ltd.
United Turkey Red Co., Ltd.
Walker Bros.
Wilson (Joshua) & Sons, Ltd.
Wolsey, Ltd.
Yates (W. E.), Ltd.

Worsted Fabrics

Benn (J.), Junr.
Cliffe Mills Co., Ltd.
Clough (Robert).
Elmfield Mill Manufacturing Co.
Empsall & Firth, Ltd.
Emsley (J.) & Co., Ltd.
Foster (John) & Son, Ltd.
Fur Fabric Co., Ltd.
Garnett (G.) & Sons, Ltd.
Gates (Ernest) & Co.
Gaunt (Reuben) & Sons, Ltd.
Halliday (John) & Sons.
Hudson, Sykes & Bousfield, Ltd.
Longbottom (H.) & Co., Ltd.
Lupton (William) & Co.
Neckwear, Ltd.
Pepper, Lee & Co., Ltd.
Pool, Lorrimer & Tabberer.
Salt (Sir Titus, Bart.), Sons & Co., Ltd.
Smithson (Joseph), Ltd.
Sutcliffe & Co.
Thornton, Marsden & Co.
Tootal Broadhurst, Lee Co., Ltd.
United Turkey Red Co., Ltd.
Walker Bros.
Wilson (Joshua) & Sons, Ltd.
Yates (W. E.), Ltd.

Wrenches (*See "Spanners and Wrenches."*)

Wringers (*See "Laundry Machinery."*)

X

Xylene

British Dyestuffs Corporation, Ltd.
Brotherton & Co., Ltd.
Burt, Boulton & Haywood, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
Leitch (John W.) & Co.
May & Baker, Ltd.

Xylol

Baird (Wm.) & Co., Ltd.
British Dyestuffs Corporation, Ltd.
Burt, Boulton & Haywood, Ltd.
Brotherton & Co., Ltd.
Butler (William) & Co. (Bristol), Ltd.
Gas Lighting Improvement Co., Ltd.
Leitch (John W.) & Co.
Major & Co., Ltd.
May & Baker, Ltd.
Pease & Partners, Ltd.
Redbourn Hill Iron & Coal Co., Ltd.
Staveley Coal & Iron Co., Ltd.

Y

Yachts

Beardmore (William) & Co., Ltd.
Fairfield Shipbuilding & Engineering Co., Ltd.
Hawthorn (R. & W.), Leslie & Co., Ltd.
Palmers Shipbuilding & Iron Co., Ltd.
Short Bros. (Rochester & Bedford), Ltd.
Thornycroft (John I.) & Co., Ltd.
Vickers, Ltd.
White (J. Samuel) & Co., Ltd.
Yarrow & Co., Ltd.

Yarns, Alpaca

Ambler (Jeremiah) & Sons, Ltd.
Clough (Robert).
Emsley (J.) & Co., Ltd.
Foster (John) & Son, Ltd.
Salt (Sir Titus), Bart., Sons & Co., Ltd.
Watson Bros. & Co. (Kidderminster), Ltd.
Waud (Christopher) & Co.

Yarns, Cotton

Barlow & Jones, Ltd.
Bedford & Mill Lane Spinning Co. (1920), Ltd.
Belgrave Mills Co., Ltd.
Bright (John) & Bros., Ltd.
Elton Cop Dyeing Co., Ltd.
Explosives Trades, Ltd.
Fielden Bros., Ltd.
Fine Cotton Spinners' & Doublers' Association, Ltd.
Great Lever Spinning Co., Ltd.
Harwood (Richard) & Son, Ltd.
Haworth (Richard) & Co., Ltd.
Houldsworth (Thos.) & Co., Ltd.
Kershaw, Leese & Co., Ltd.
McConnel & Co., Ltd.
Nagersheth (M.) Sons.
Pool, Lorrimer & Tabberer.
Stott (James), Ltd.
Tunnicliffe & Hampson, Ltd.
United Turkey Red Co., Ltd.
Wardle & Davenport, Ltd.
Whitehead (David) & Sons, Ltd.
Wilkinson (John).

Yarns, Hemp & Manilla

Dixon & Corbett & R. S. Newall & Co., Ltd.
Wright (John & Edwin), Ltd.

Yarns, Hosiery

Ambler (Jeremiah) & Sons.
Bastard (J. & W.).
Clough (Robert).
Elton Cop Dyeing Co., Ltd.
Emsley (J.) & Co., Ltd.
Fine Cotton Spinners' & Doublers' Association, Ltd.
Foster (John) & Son, Ltd.
Kershaw, Leese & Co., Ltd.
McConnel & Co., Ltd.
Pilgrim (James E.)., Ltd.
Pool, Lorrimer & Tabberer.
Salt (Sir Titus, Bart.), Sons & Co., Ltd.
Stott (James), Ltd.
Tankard (James), Ltd.
Taylor (C. F.) & Co., Ltd.
United Turkey Red Co., Ltd.
Walker Bros.
Watson Bros. & Co. (Kidderminster), Ltd.

Yarns, Jute

Boath (John) Junr. & Co., Ltd.
Kershaw, Leese & Co., Ltd.
Mitchell (Andrew) & Co., Ltd.
Scott (James) & Co., Ltd.

Yarns, Linen

Explosives Trades, Ltd.
Linen Thread Co., Ltd.
Nagersheth (M.) Sons.

Yarns, Mohair

Ambler (Jeremiah) & Sons, Ltd.
Clough Robert).
Emsley (J.) & Co., Ltd.
Foster (John) & Son, Ltd.
Salt (Sir Titus), Bart,. Sons & Co., Ltd.
Taylor (C. F.) & Co., Ltd.
Waud (C.) & Co.

Yarns, Silk

Lister & Co., Ltd.
Walker Bros.

Yarn Winding Machinery

(*See "Textile Machinery."*)

Yarns, Woollen

Elmfield Mill Manufacturing Co., Ltd.
Elton Cop Dyeing Co., Ltd.
Fine Cotton Spinners' & Doublers' Association, Ltd
Pool, Lorrimer & Tabberer.
Salt (Sir Titus), Bart., Sons & Co., Ltd.

Yarns, Worsted

Ambler (Jeremiah) & Sons, Ltd.
Bastard (J. & W.).
Clough (Robert).
Elmfield Mill Manufacturing Co.
Emsley (J.) & Co., Ltd.
Firth (T. F.) & Sons, Ltd.
Foster (John) & Co., Ltd.
Gates (Ernest) & Co.
Gaunt (Reuben) & Sons, Ltd.
Hudson, Sykes & Bousfield, Ltd.
Illingworth (Danl.) & Sons.
McConnel & Co., Ltd.
Morris (Wm.) & Sons, Ltd.
Pilgrim (James E.).
Pool, Lorrimer & Tabberer.
Salt (Sir Titus), Bart., Sons & Co., Ltd.
Smith, Bulmer & Co.
Tankard (James), Ltd.
Taylor (C. F.) & Co., Ltd.
Walker Bros.
Watson Bros. & Co. (Kidderminster), Ltd.
Wilson (C. & A.).

Yeast

Distillers' Co., Ltd.
Calder (James) & Co., Ltd.
May & Baker, Ltd.

Yellow Metals (*See "Alloys."*)

Yohimbin

Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
Whiffen & Sons, Ltd.

Z

Zinc Chloride

British Dyestuffs Corporation, Ltd.
Evans, Sons, Lescher & Webb, Ltd.
May & Baker, Ltd.
United Alkali Co., Ltd.

Zinc Formaldehyde Sulphoxalate

Brotherton & Co., Ltd.

Zinc Metal

Braby (Frederick) & Co., Ltd.
Chance & Hunt, Ltd.
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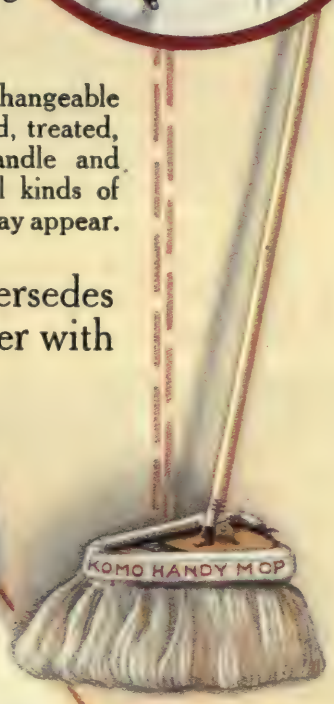

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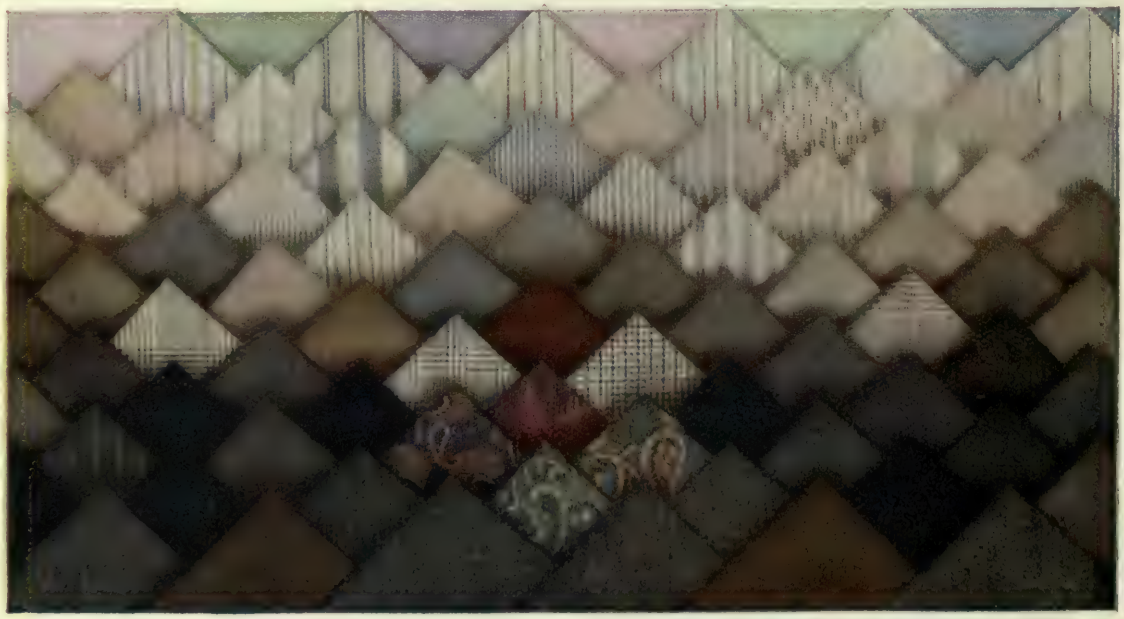

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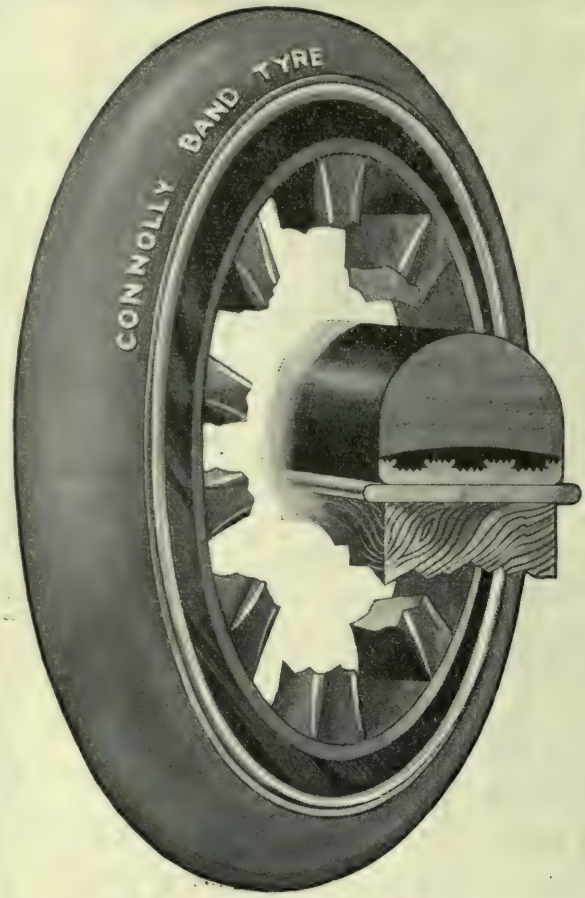

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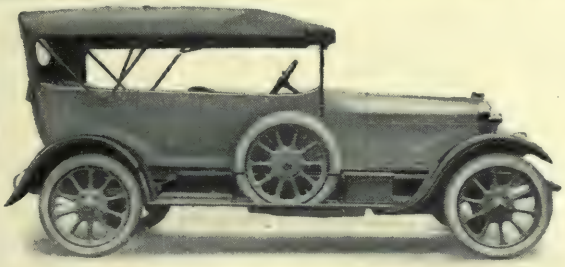

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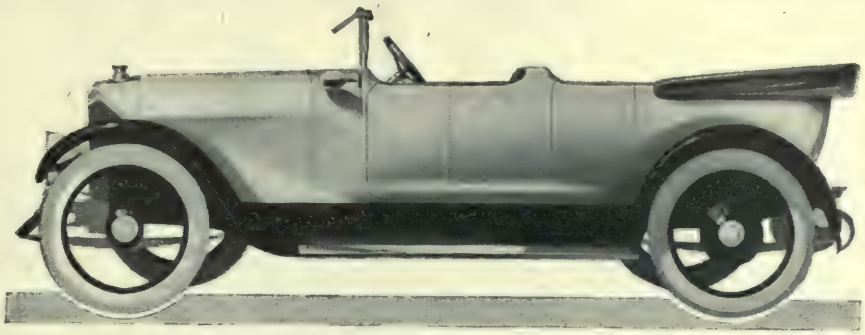

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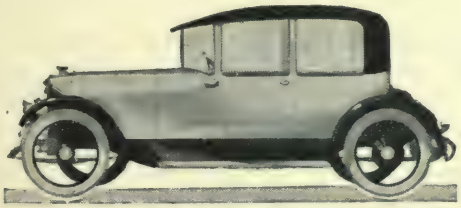

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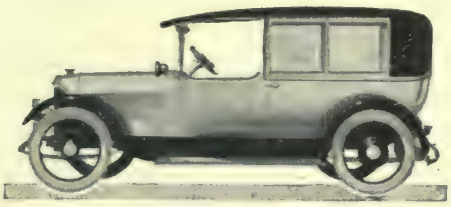

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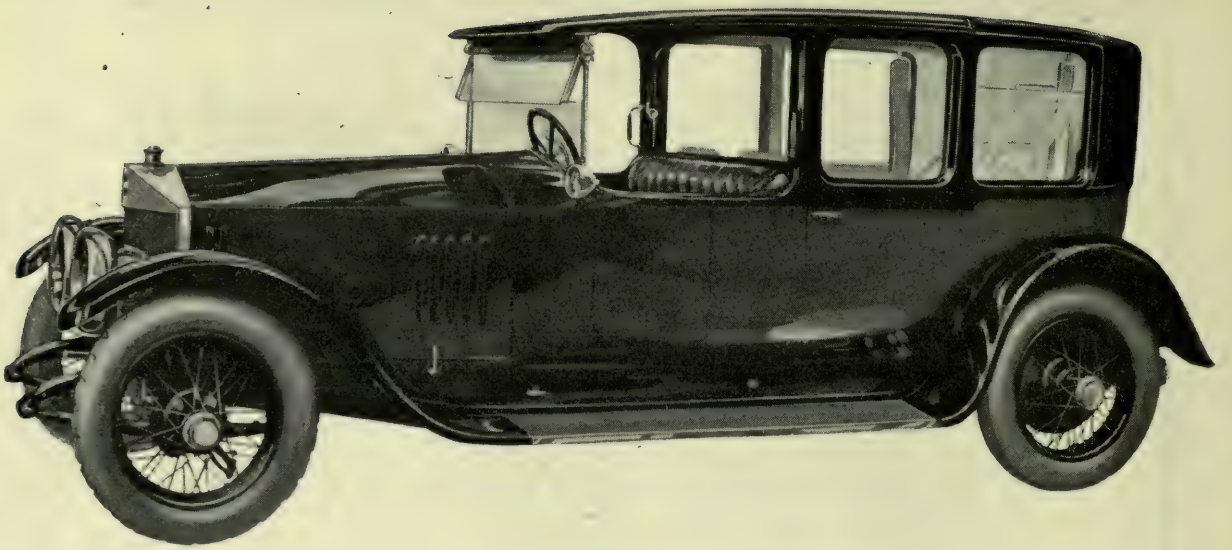

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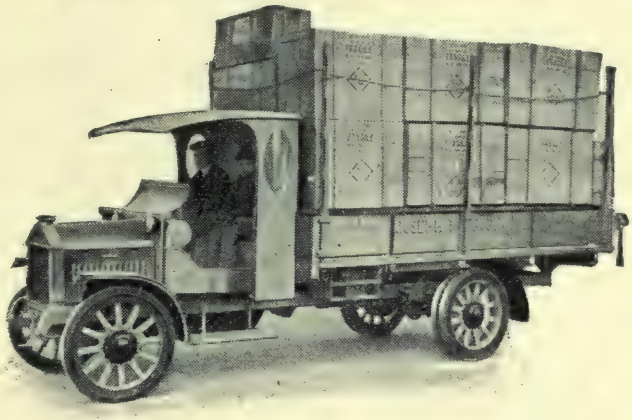

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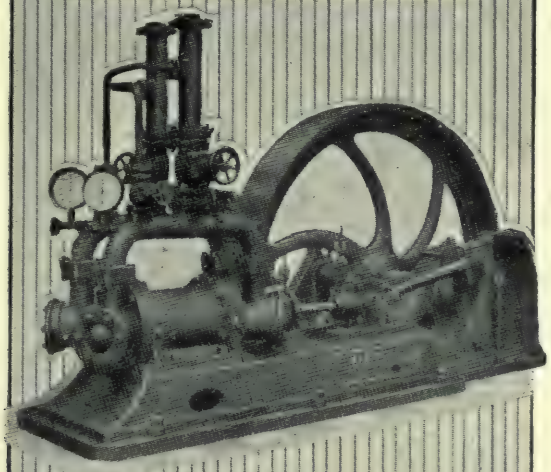

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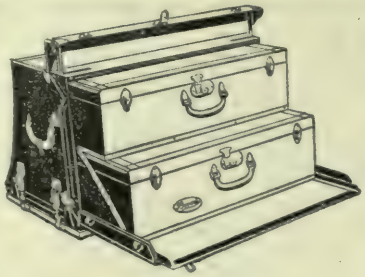

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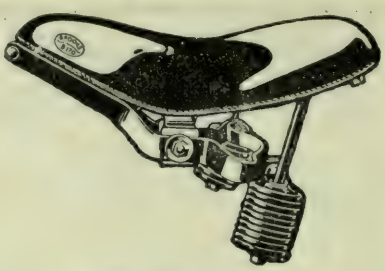

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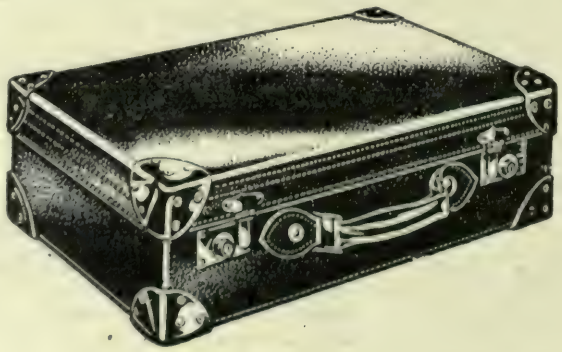

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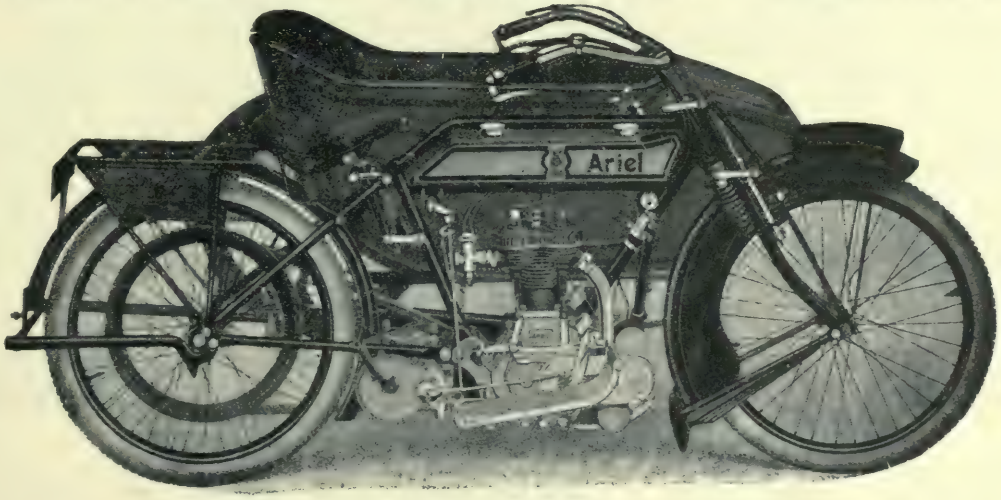

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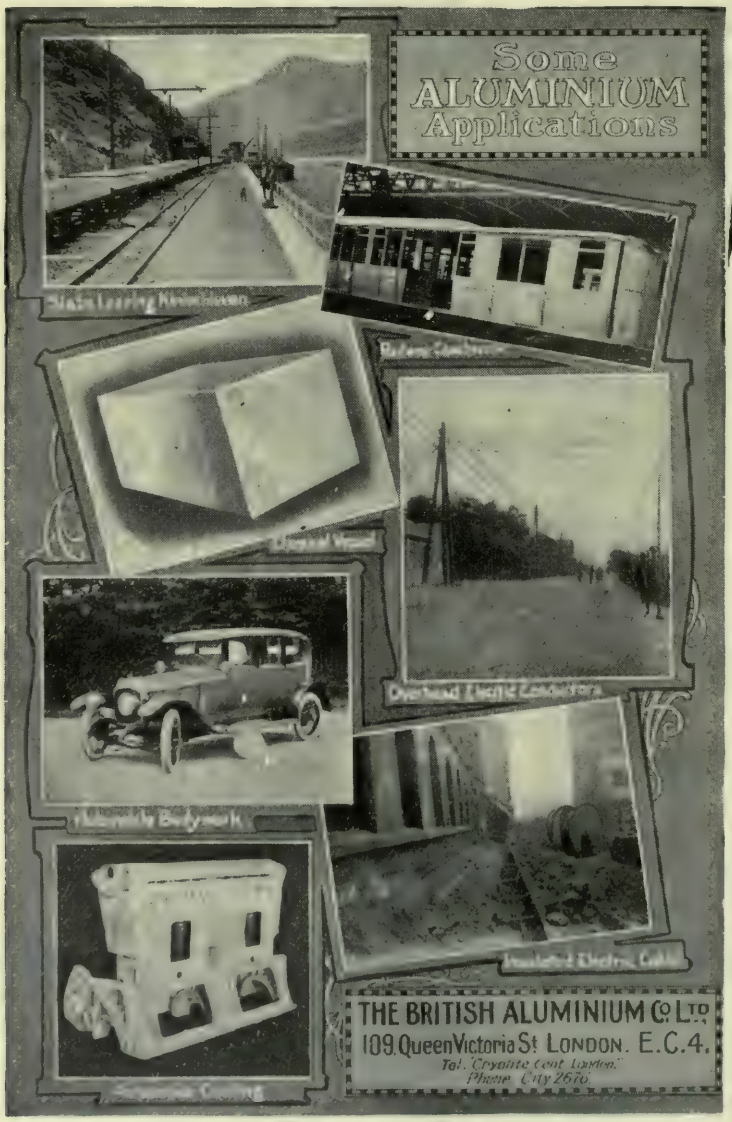

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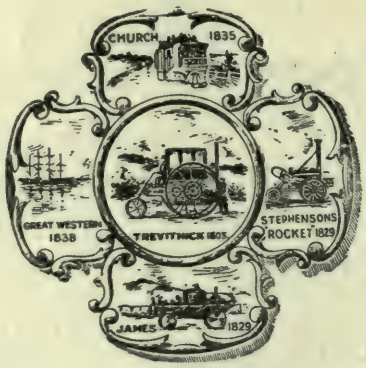

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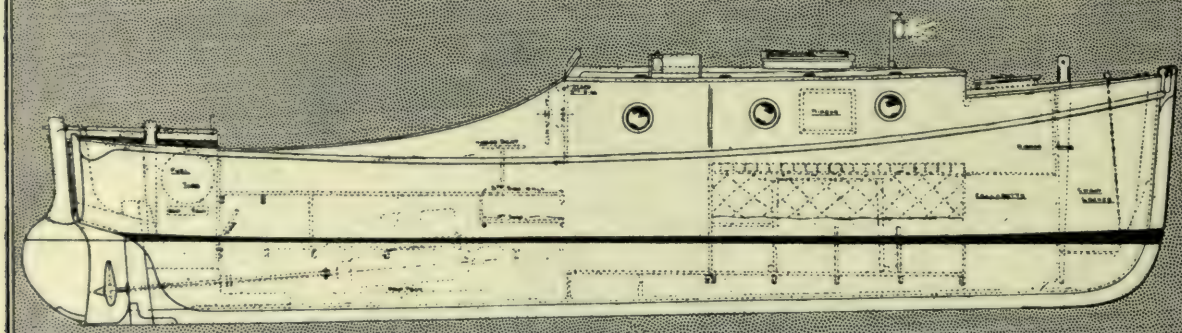

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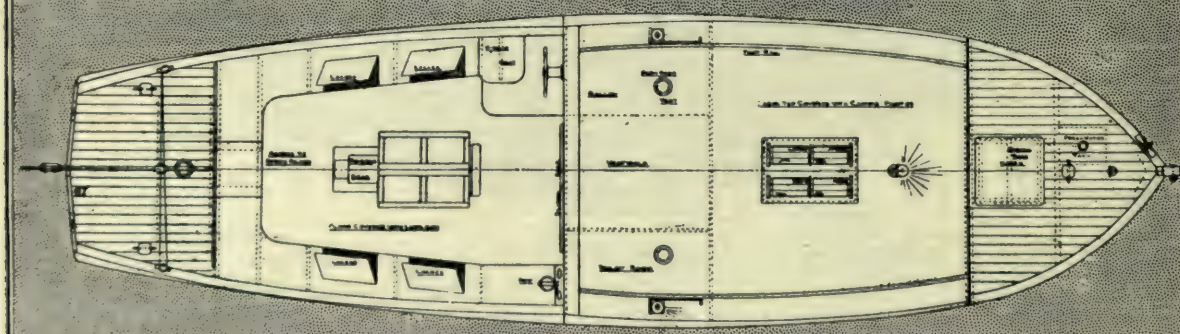

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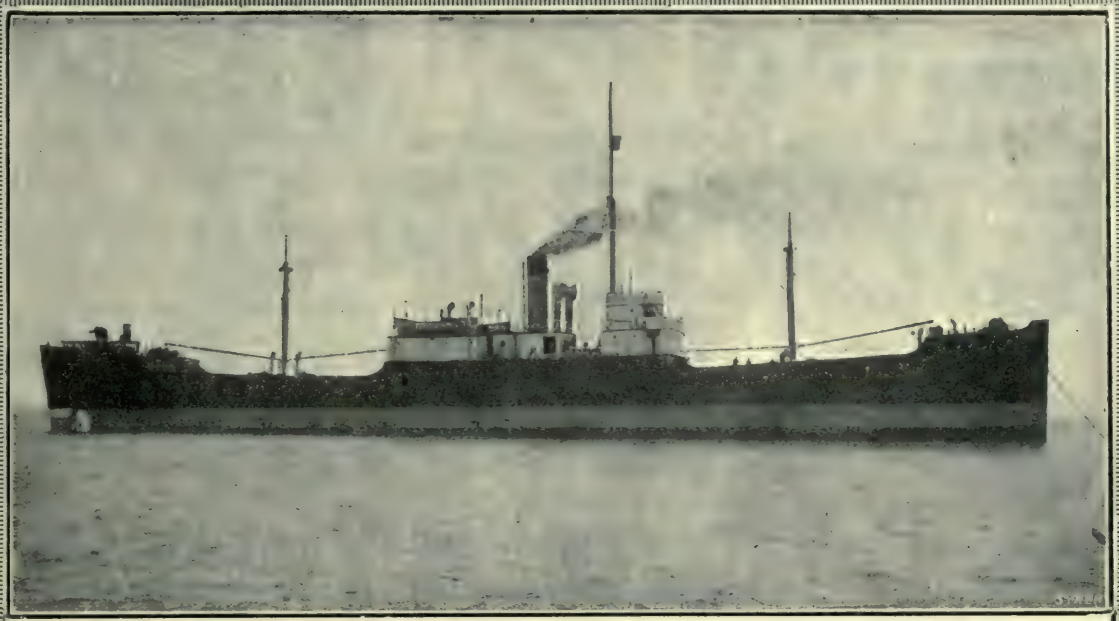

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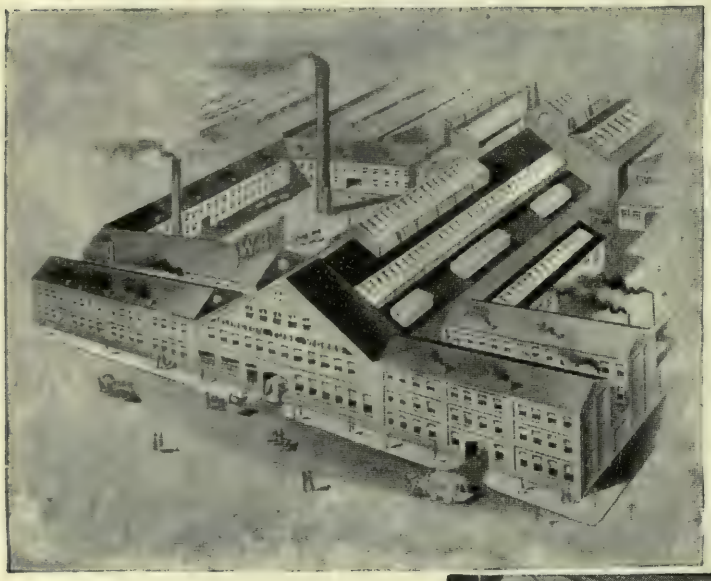

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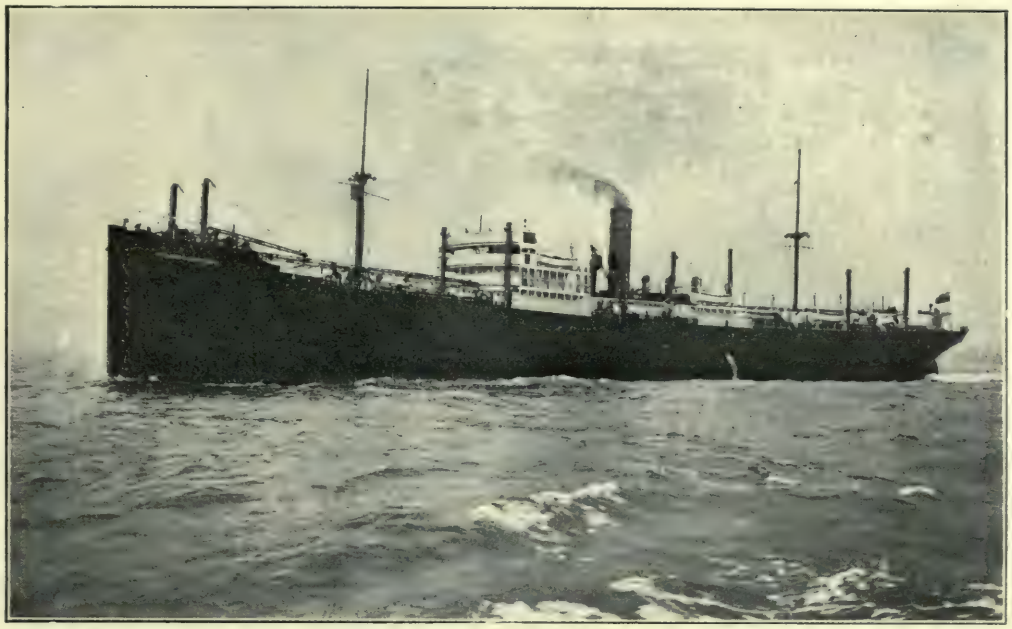

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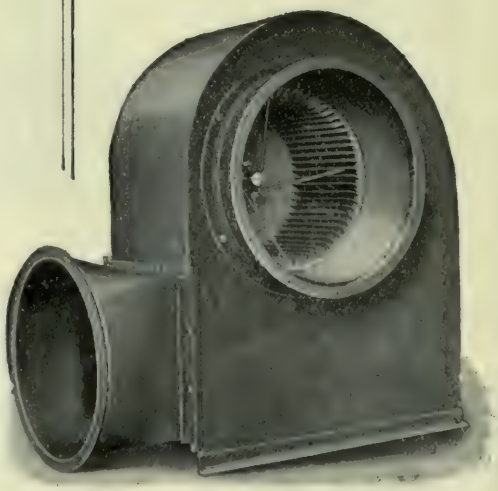

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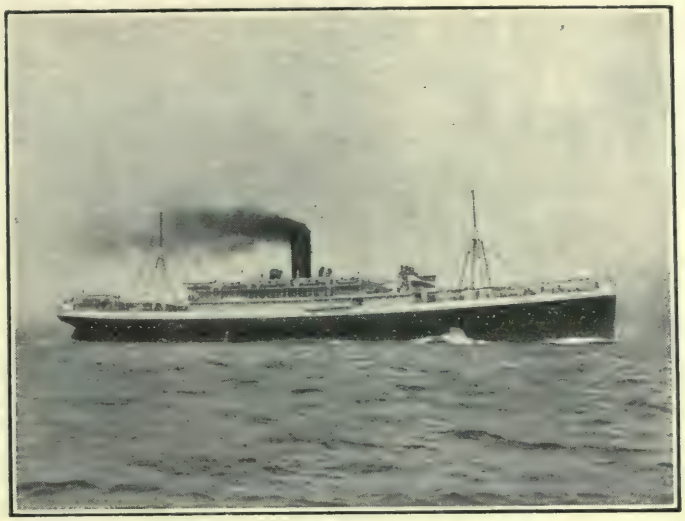

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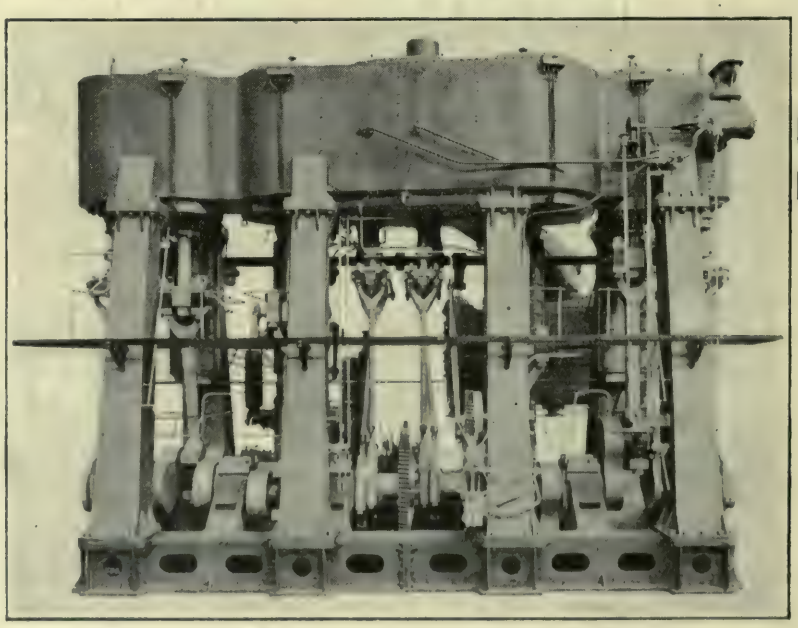

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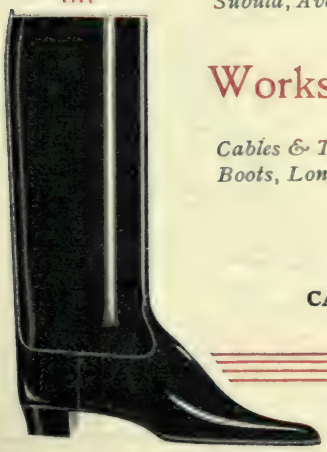

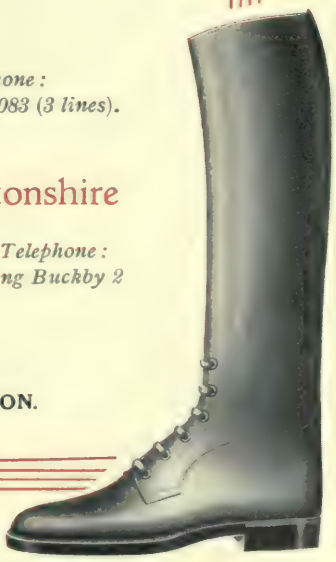

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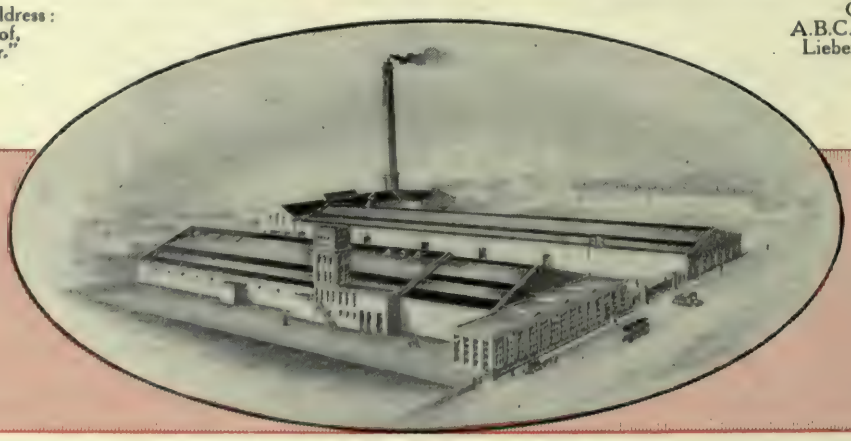

Albion Works, Pendleton, Manchester.

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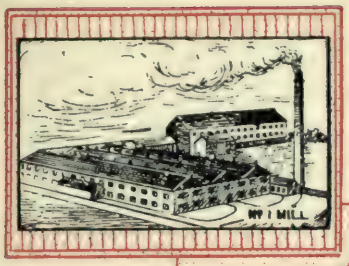

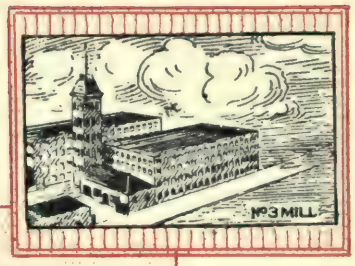

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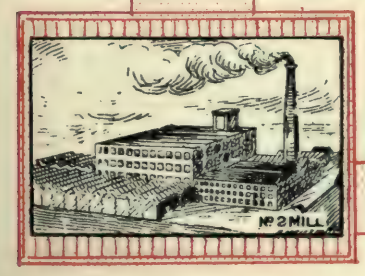

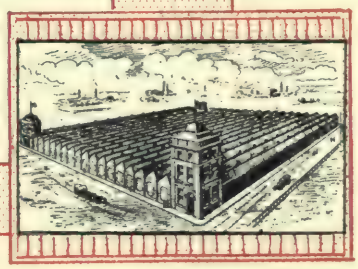

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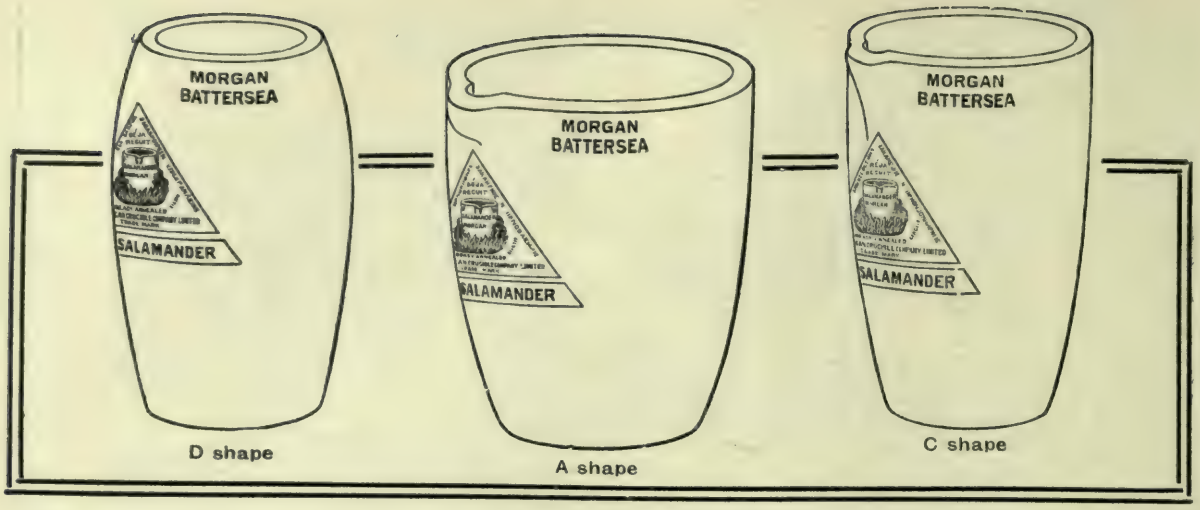

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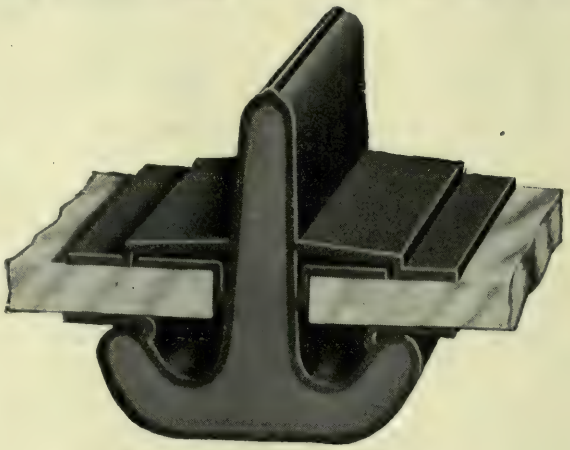

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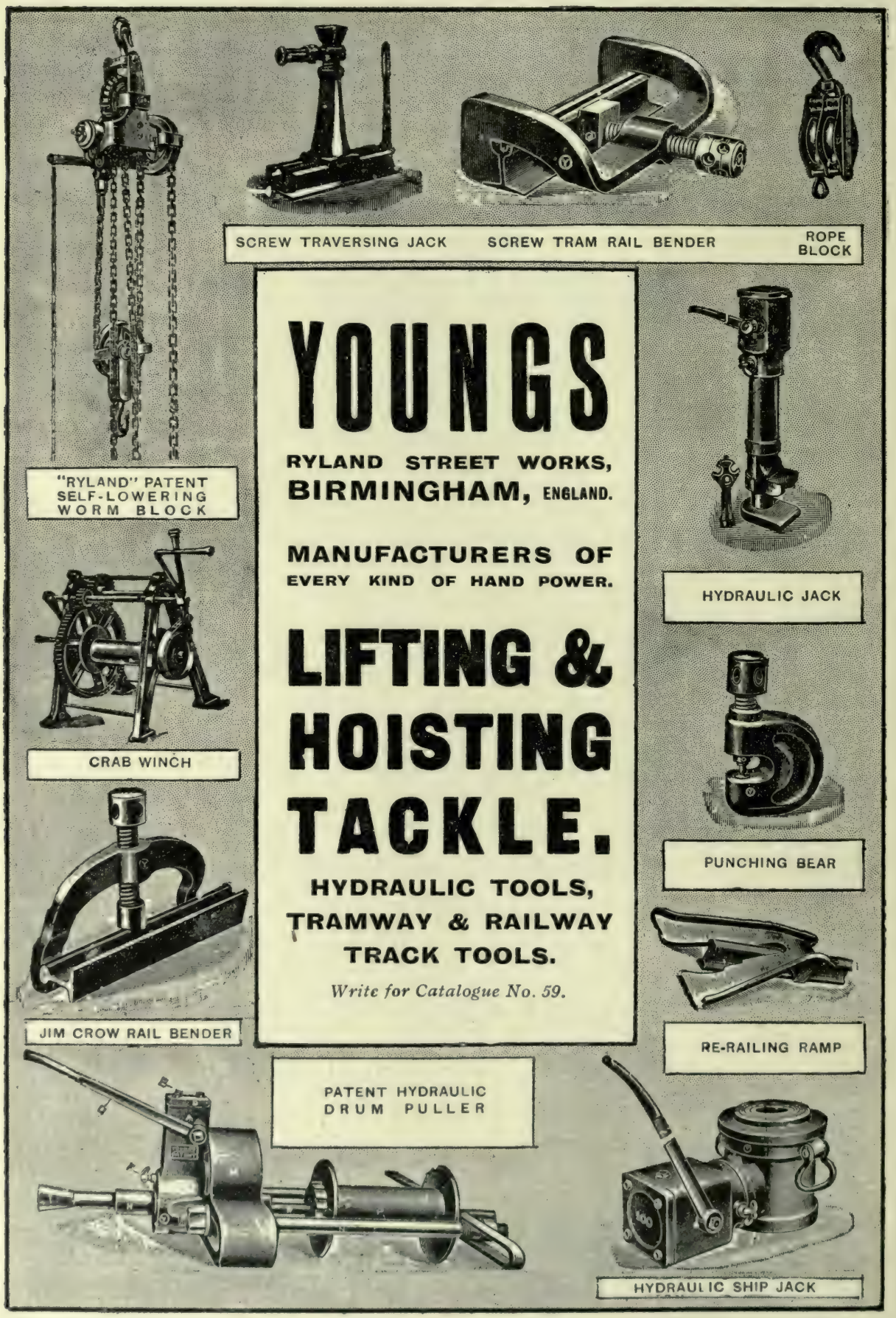
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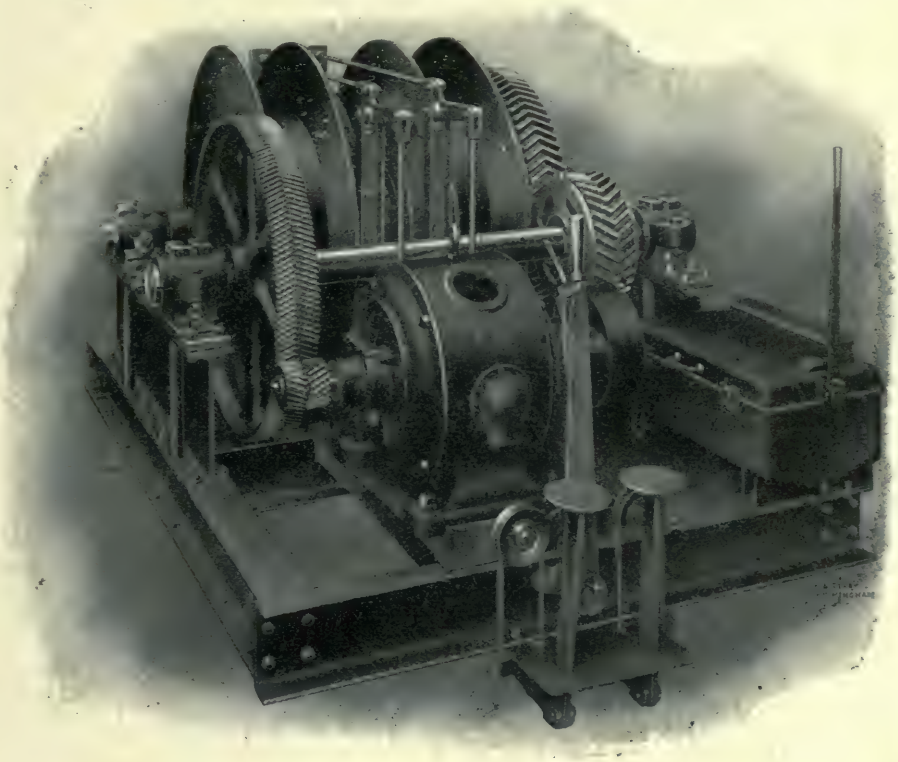

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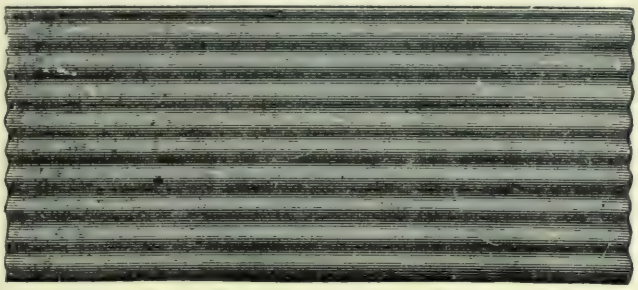

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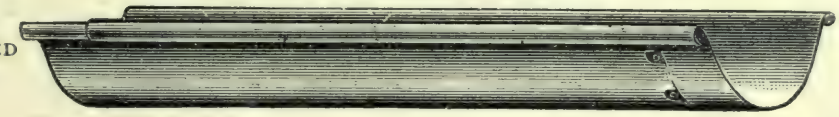

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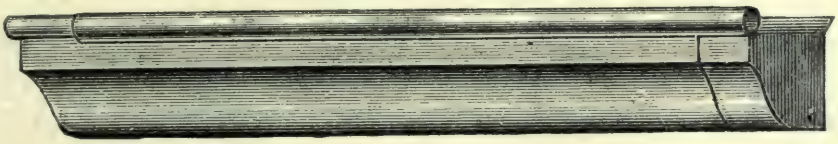

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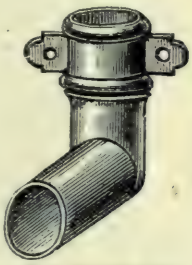

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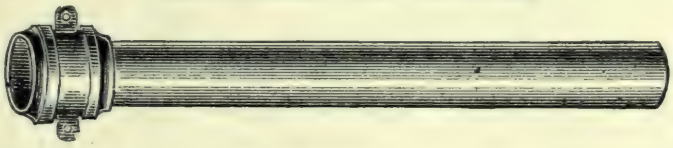

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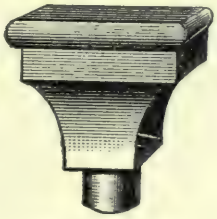

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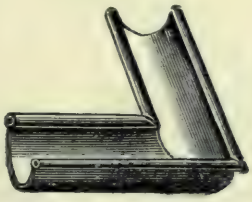

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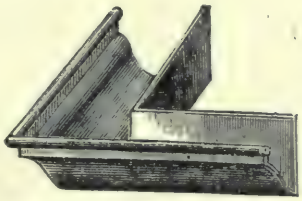

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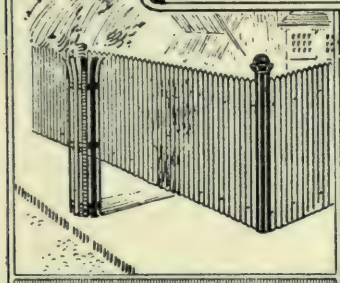

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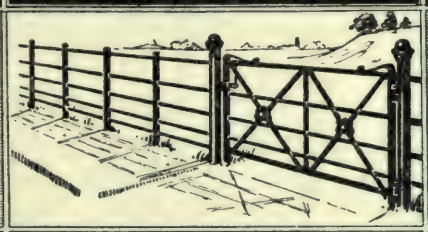

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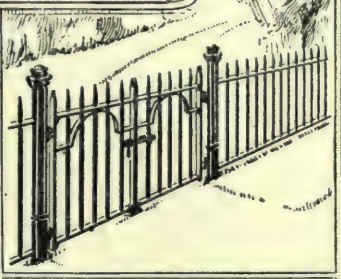

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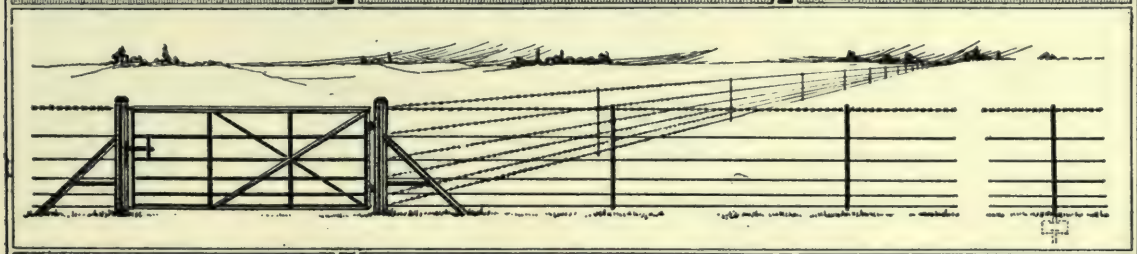

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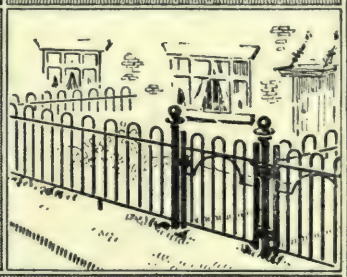

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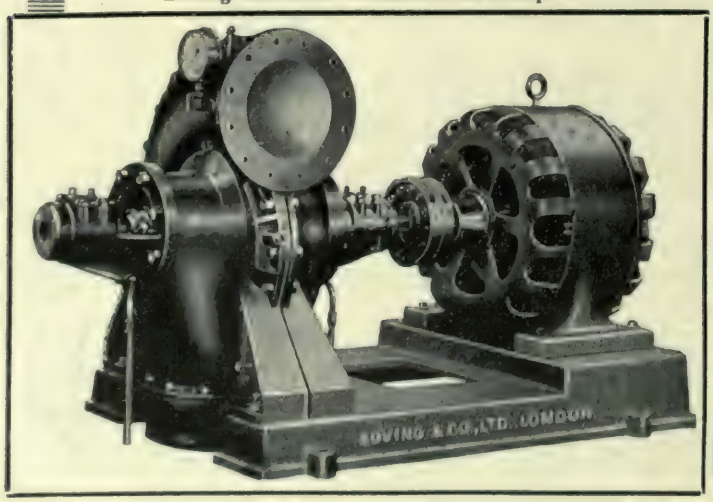

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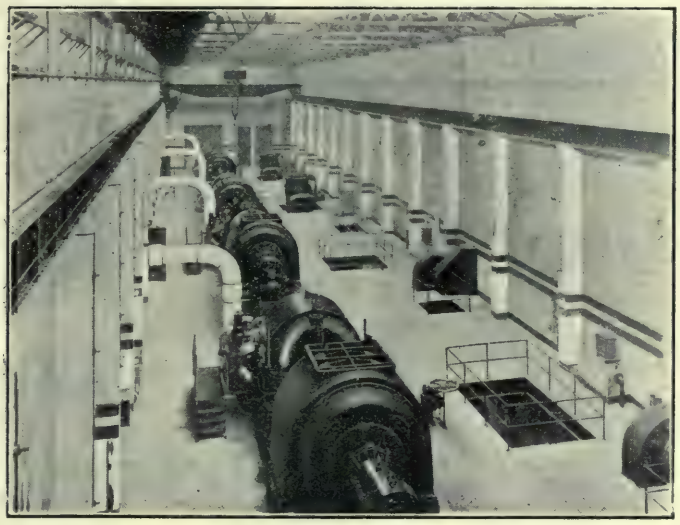

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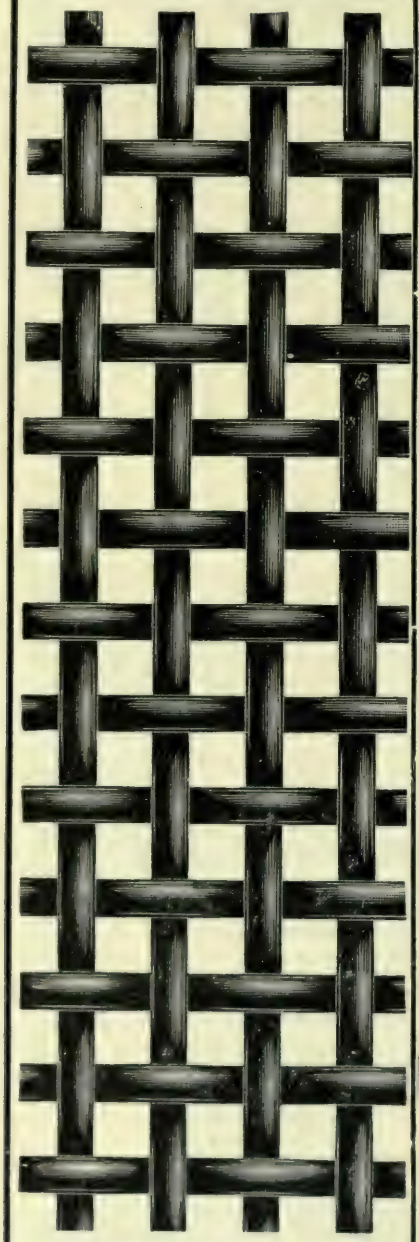

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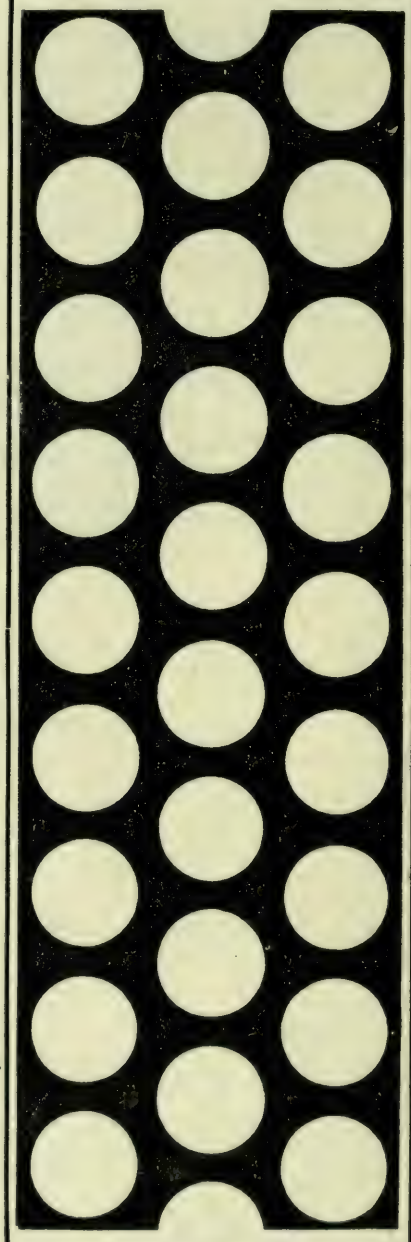

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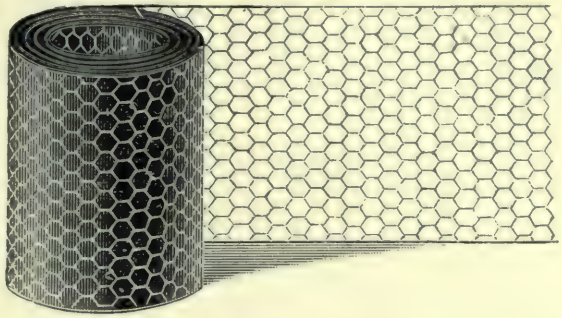

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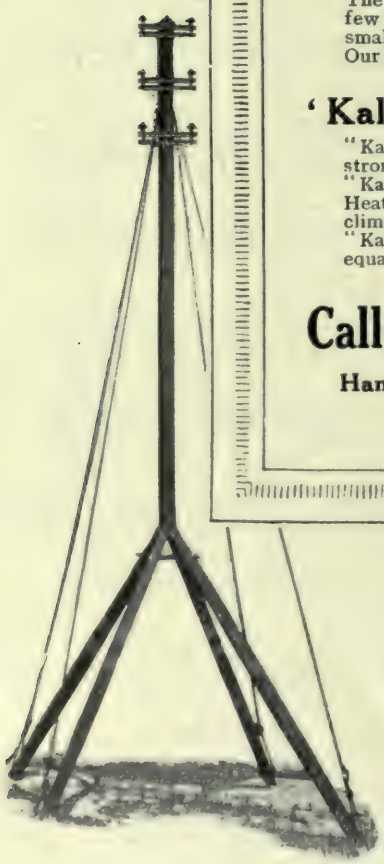

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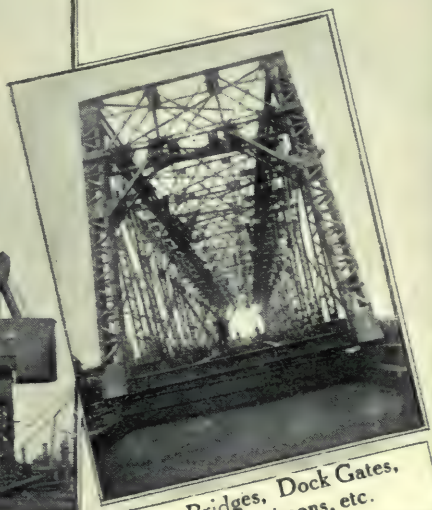

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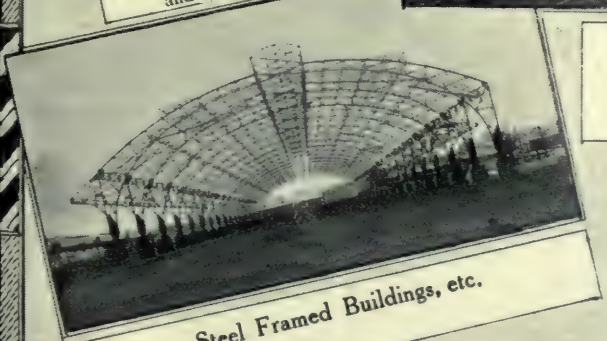

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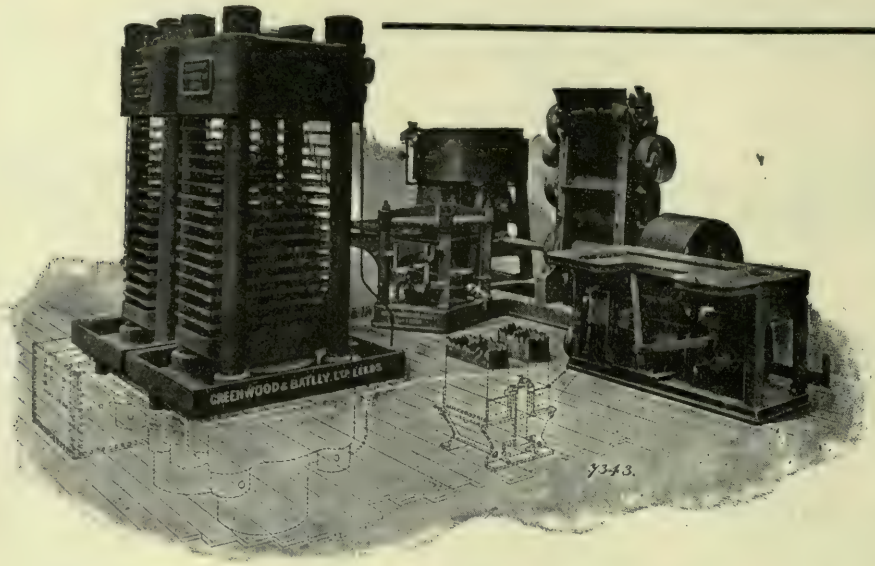

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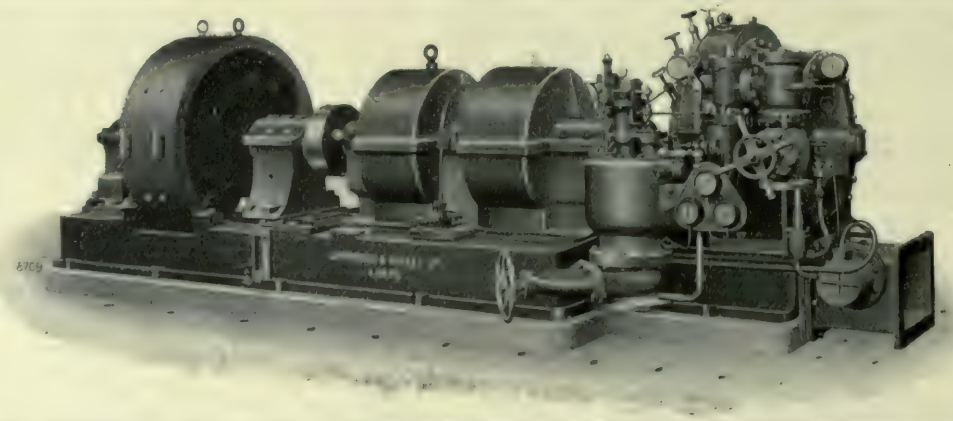

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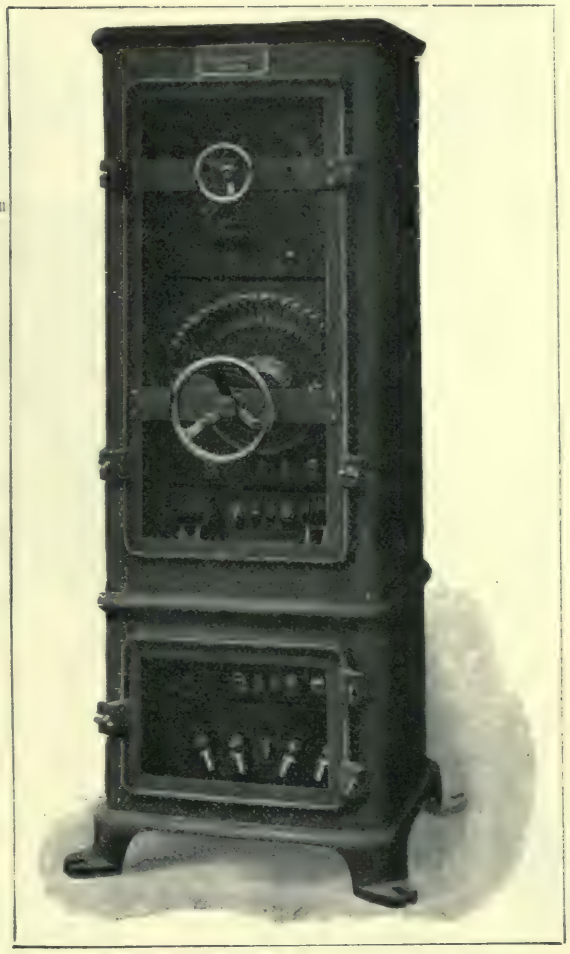

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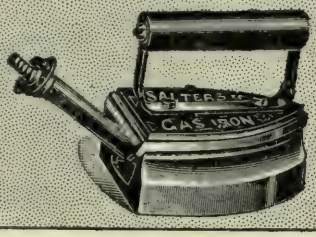

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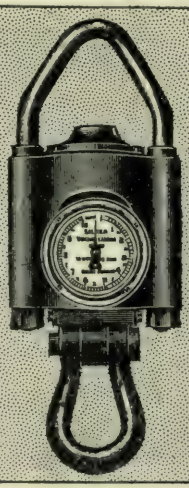

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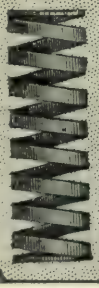

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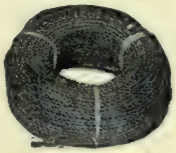

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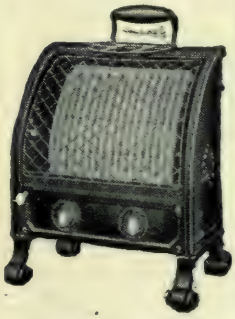

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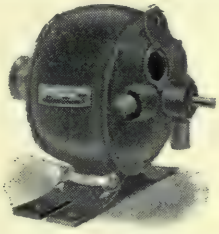

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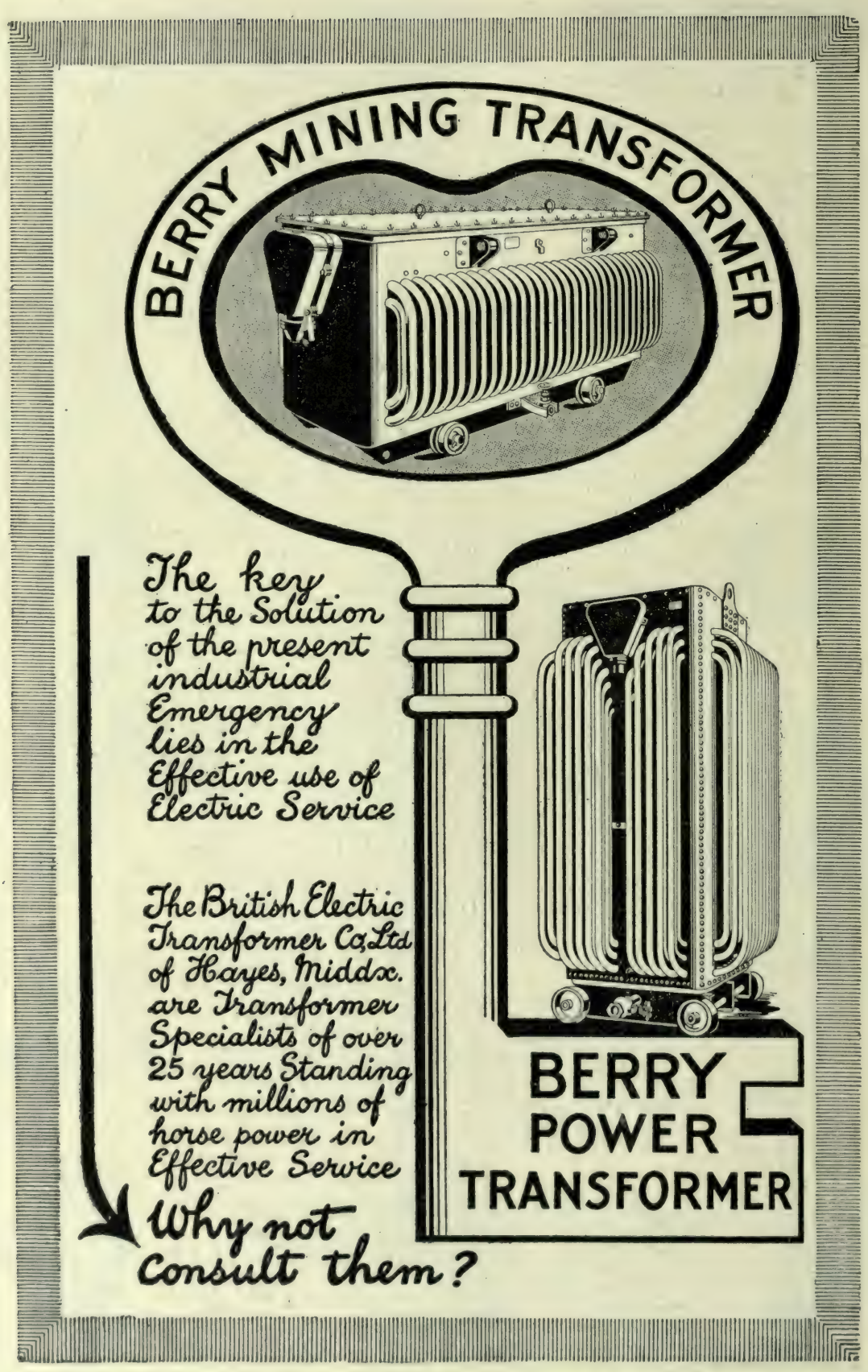

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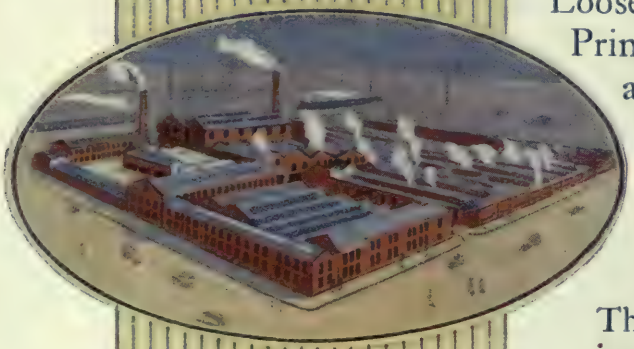

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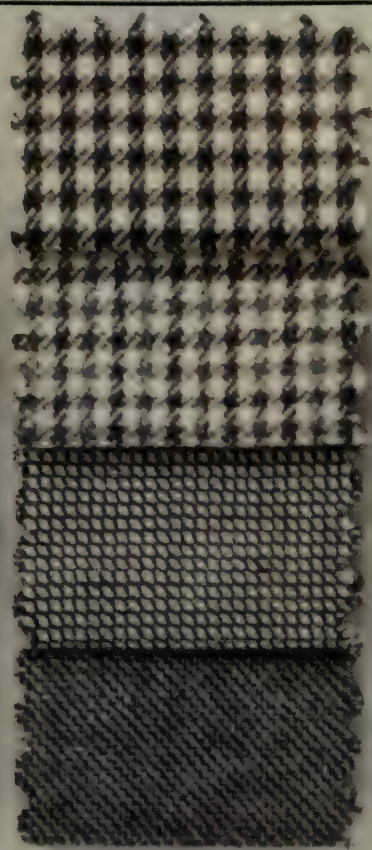

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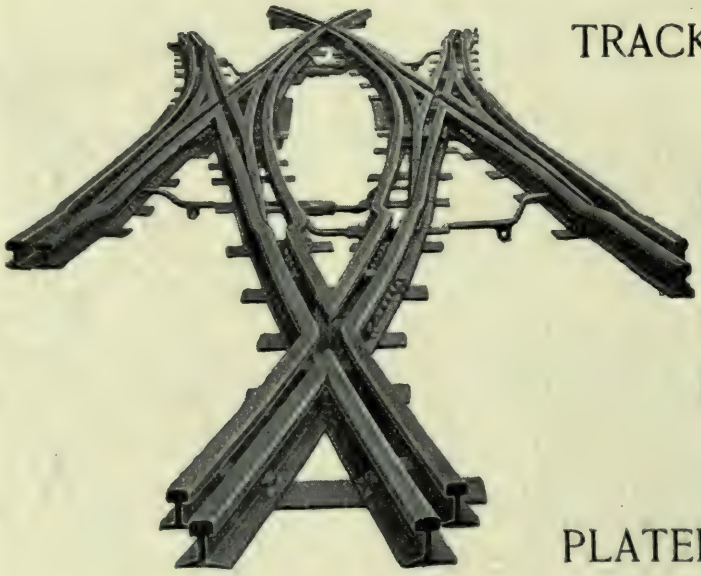

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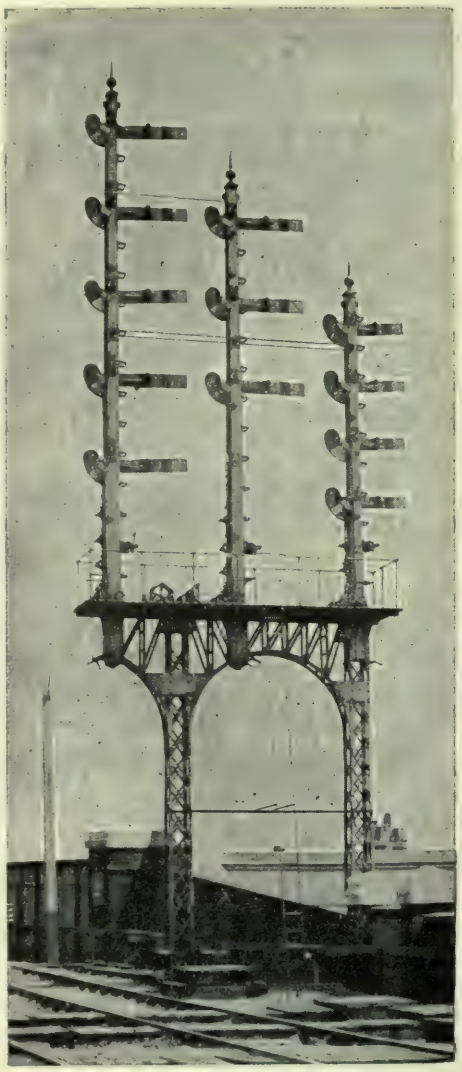

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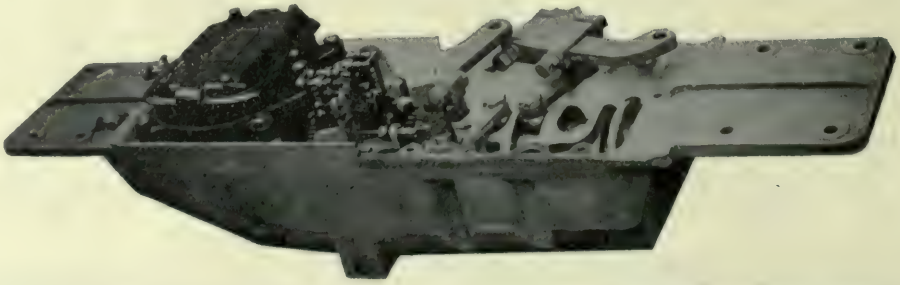

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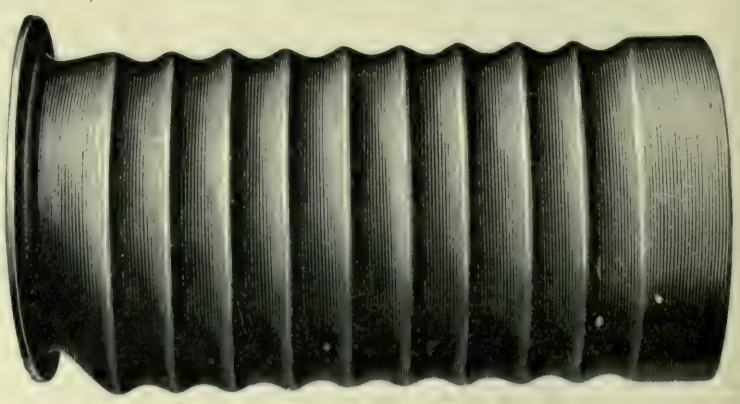

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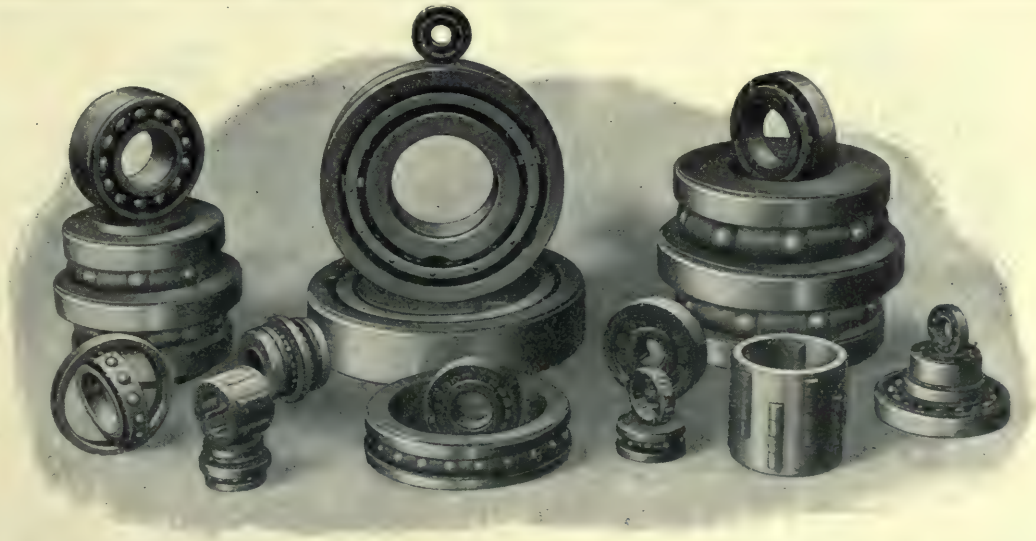

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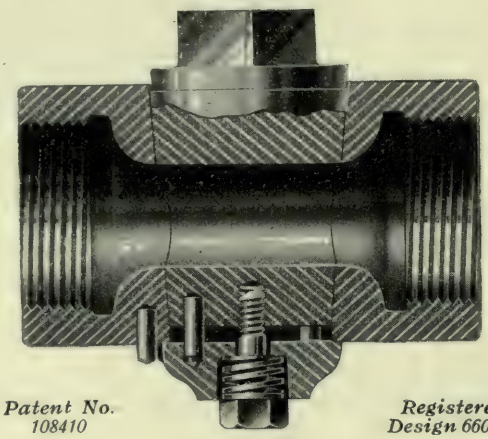

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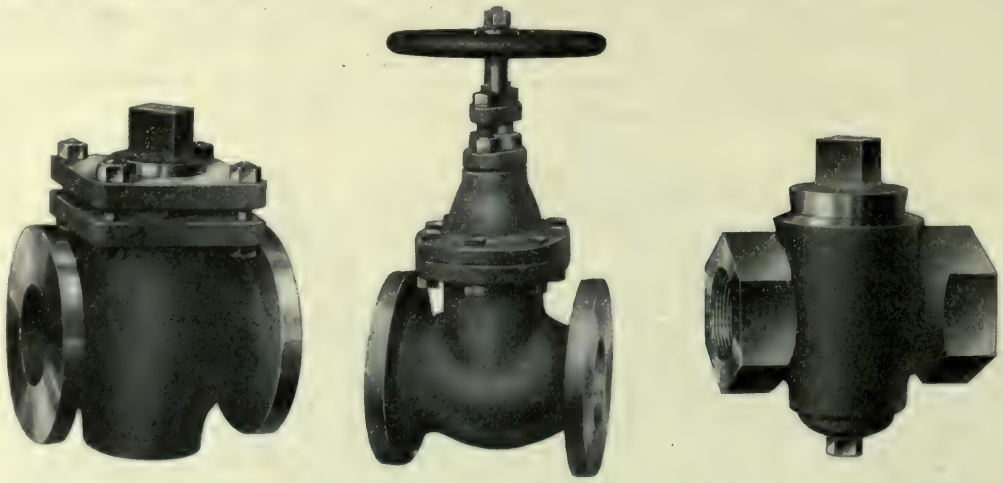

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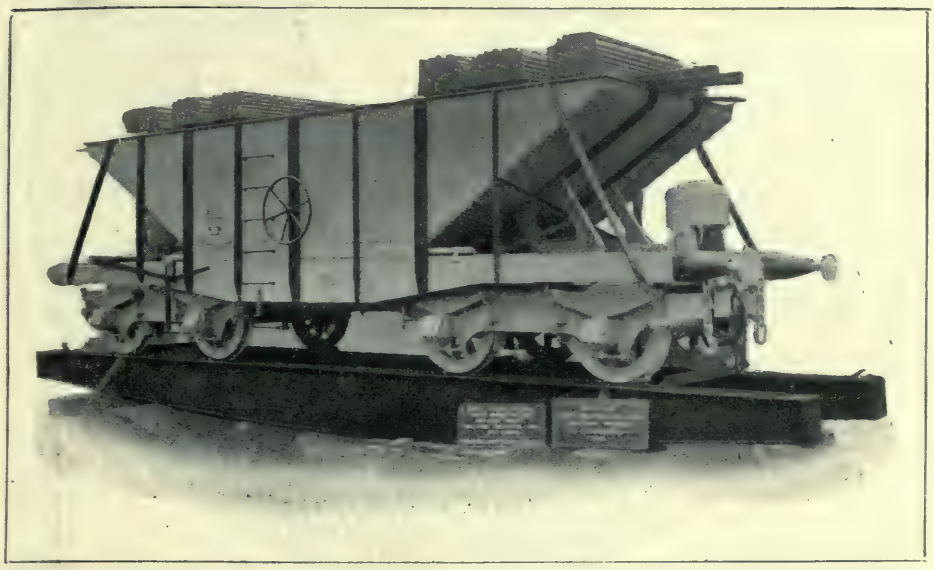

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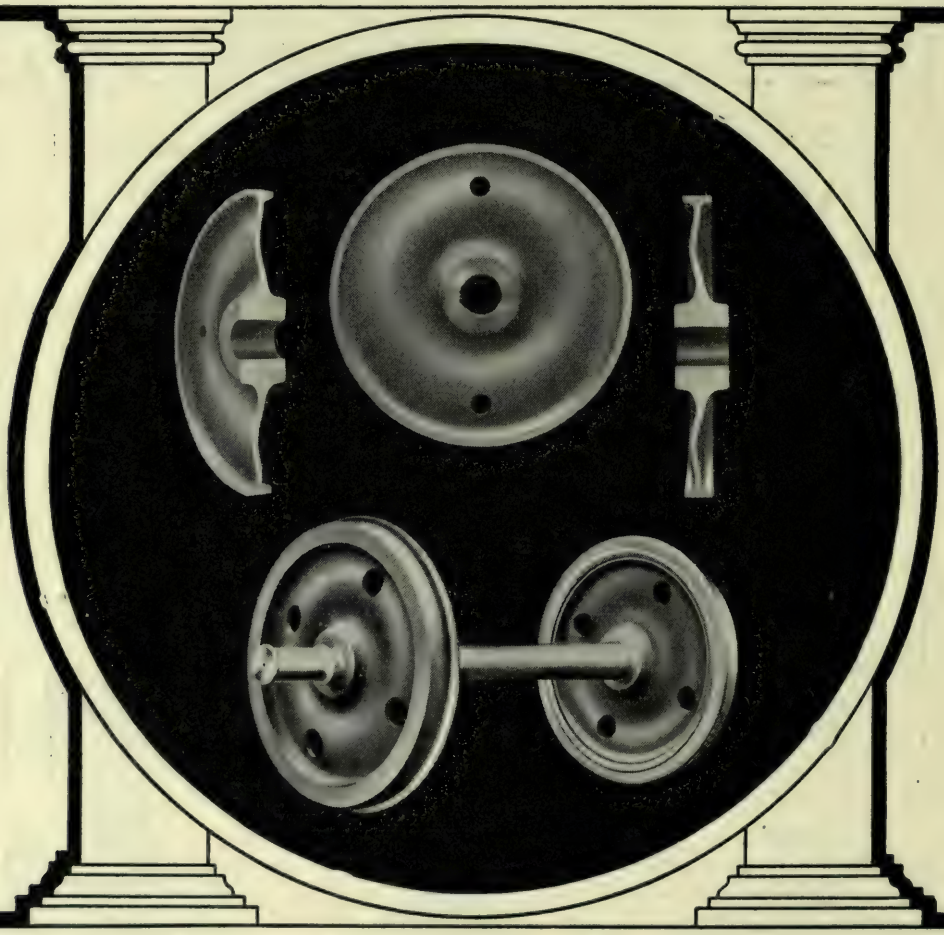

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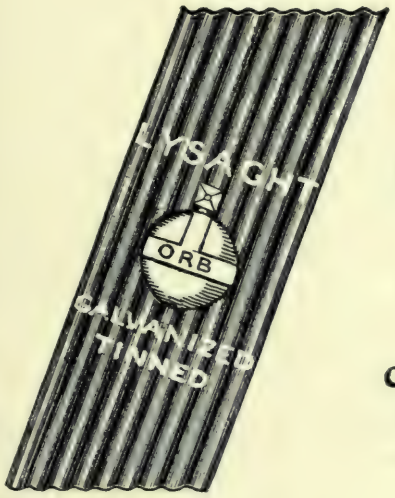

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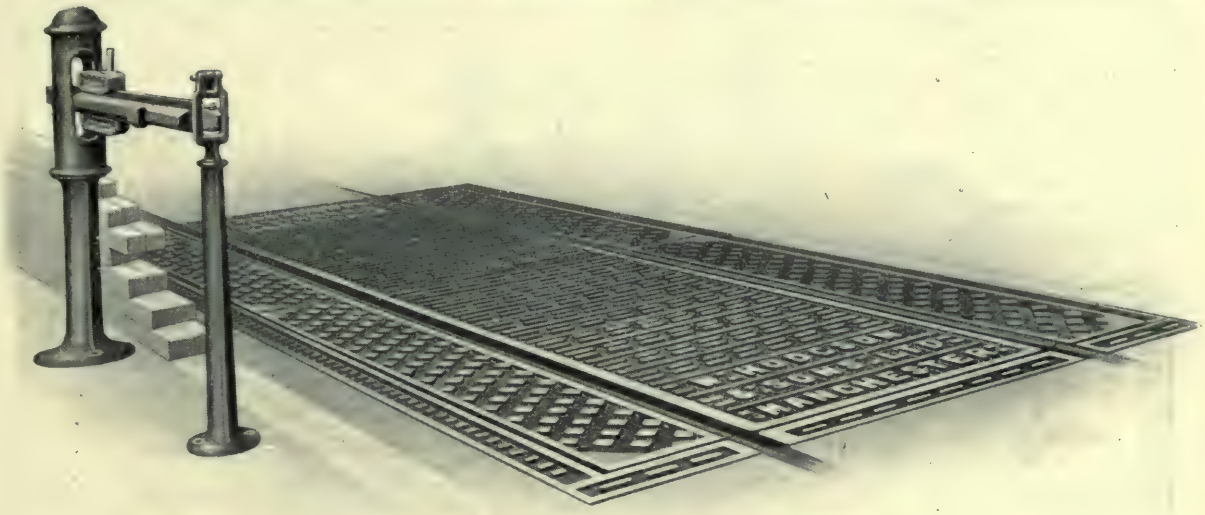

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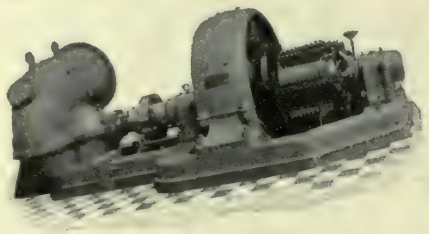

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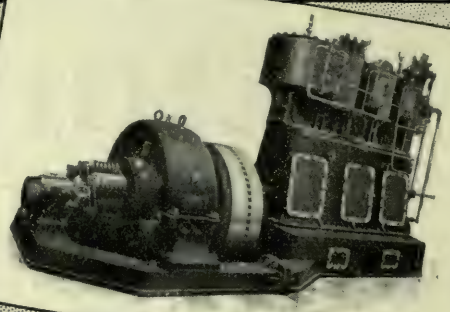

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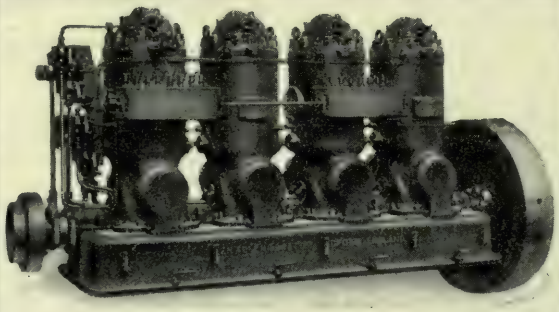

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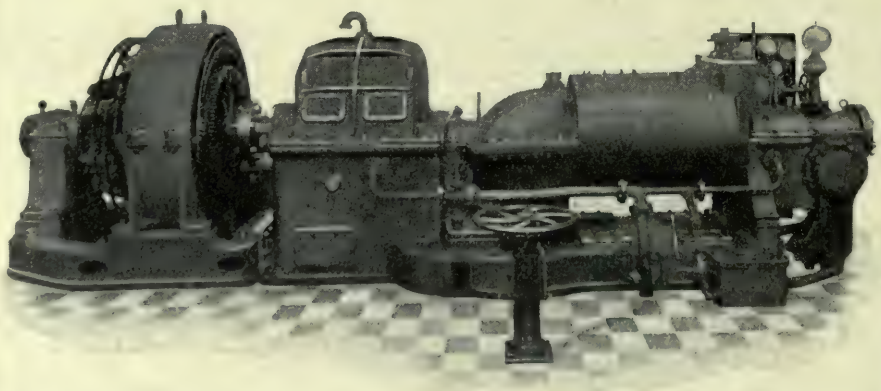

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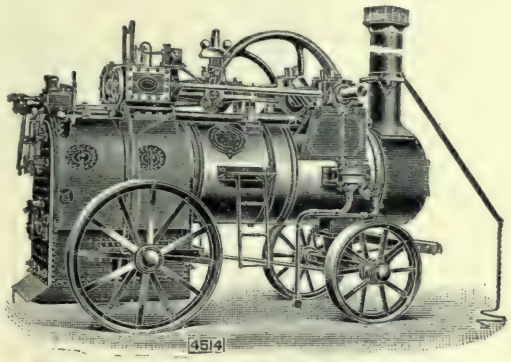

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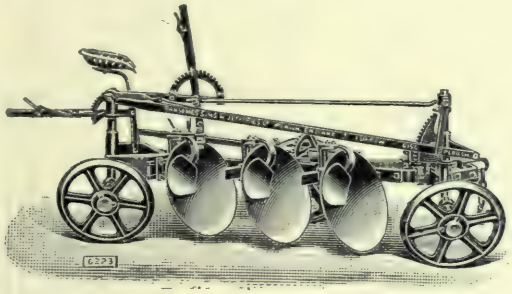

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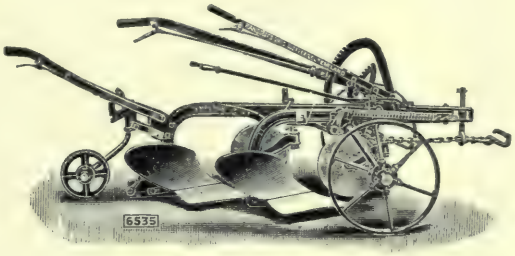
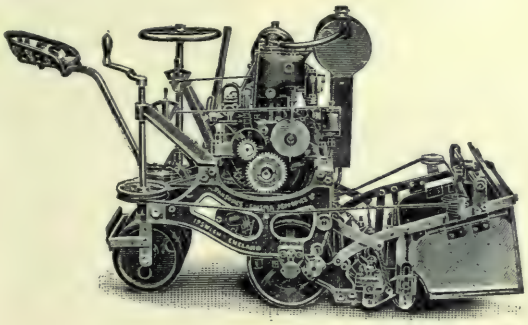


SHARE PLOUGHS



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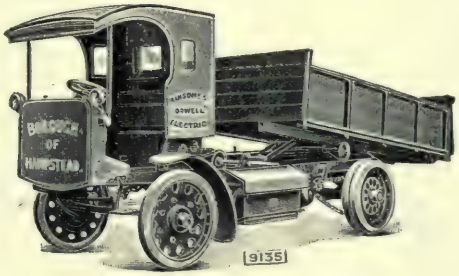

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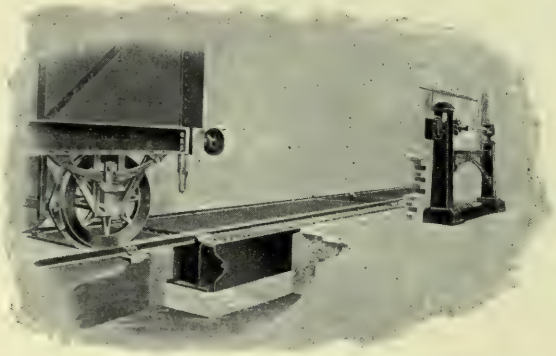

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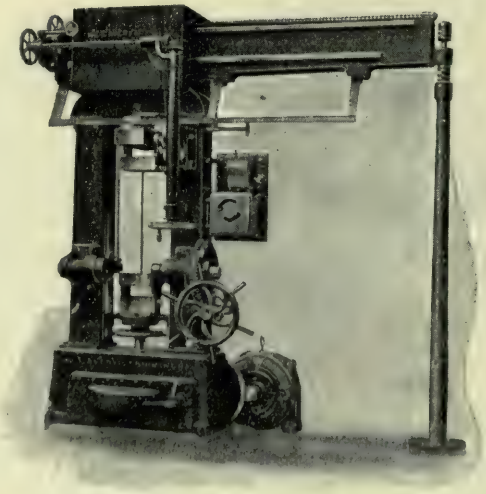

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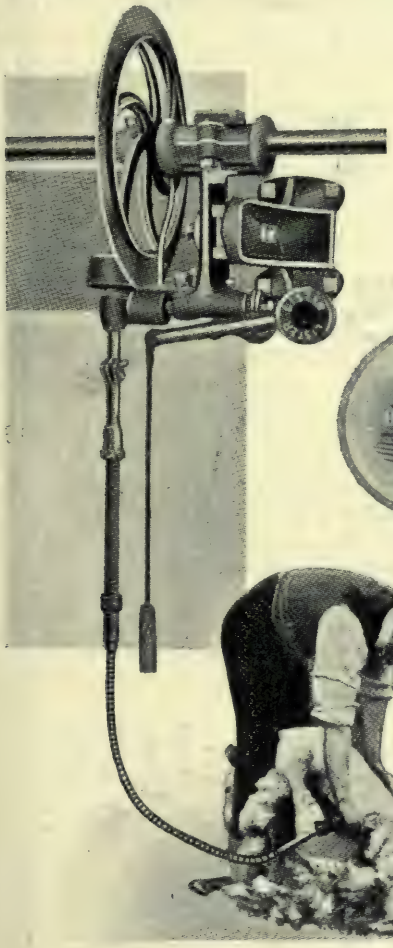

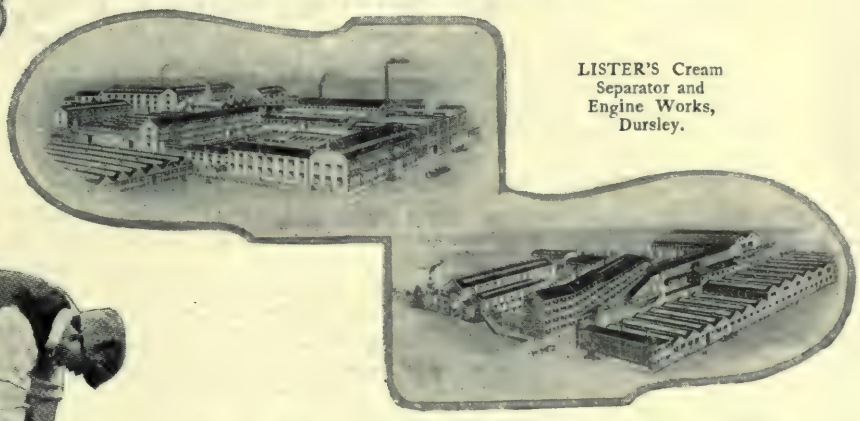

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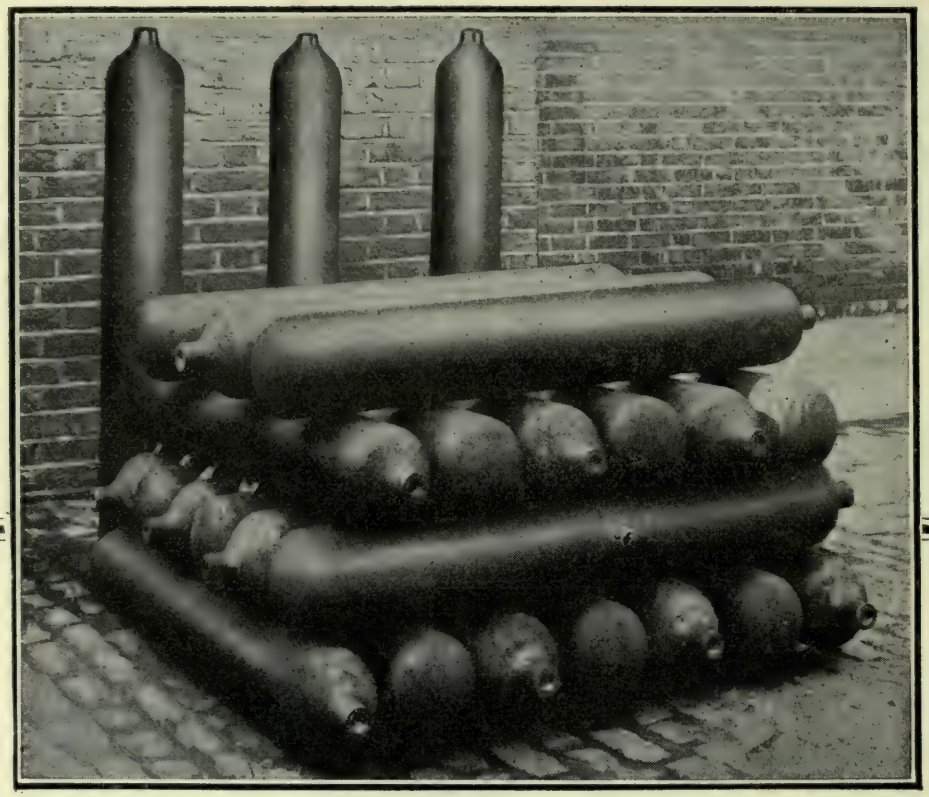

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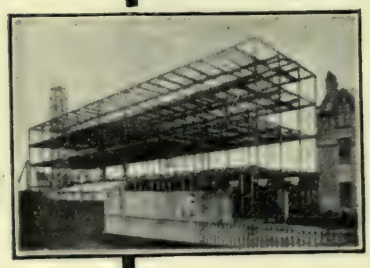

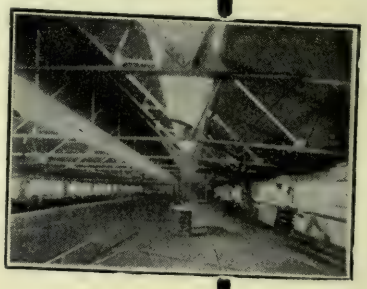

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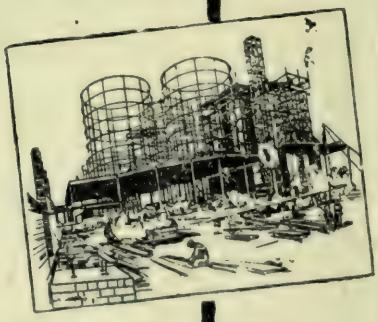

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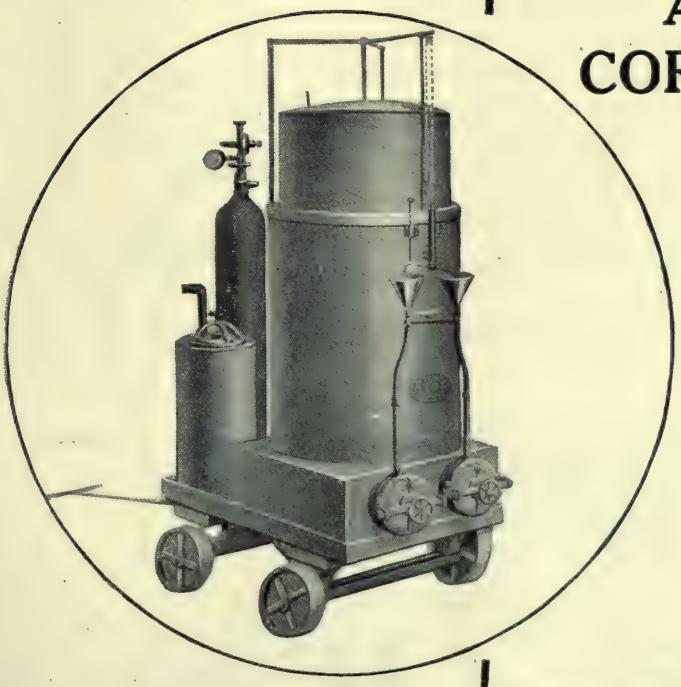

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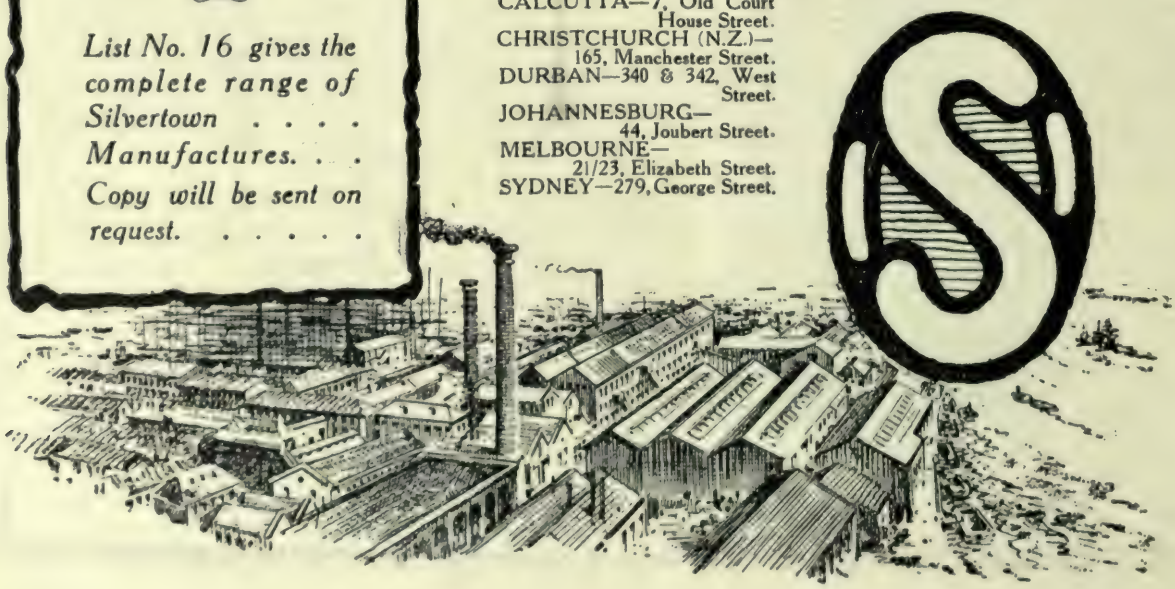

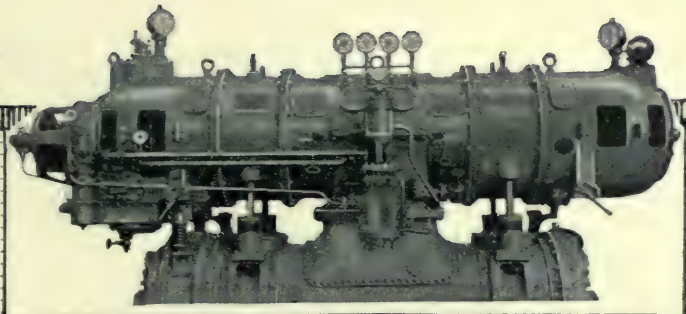

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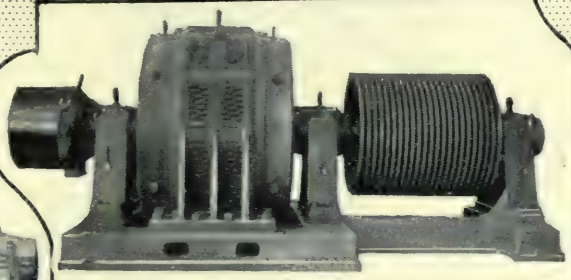

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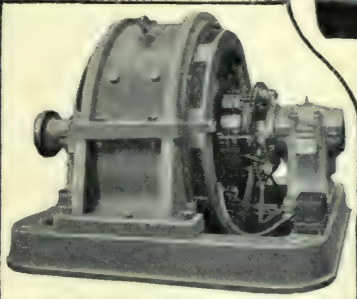

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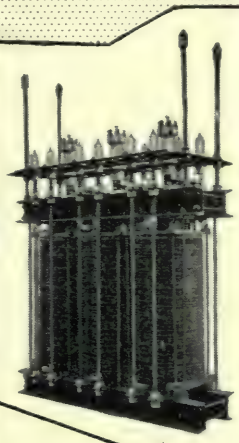

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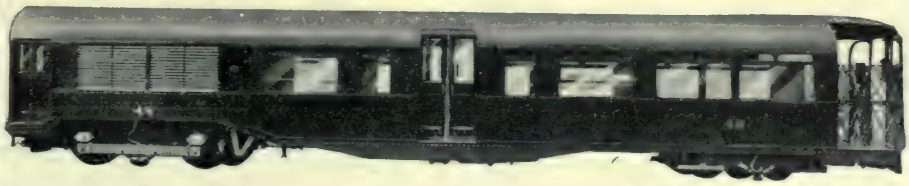

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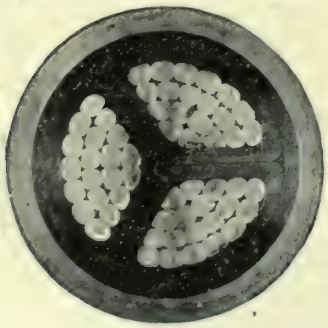

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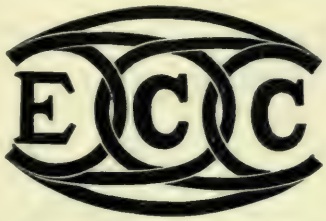

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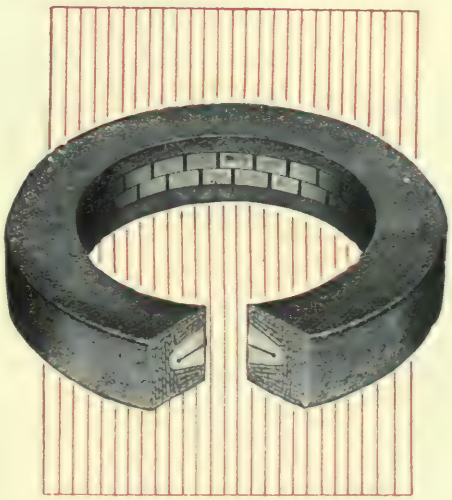

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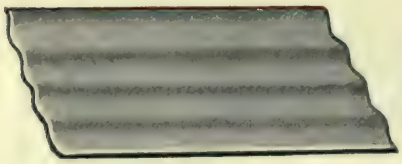

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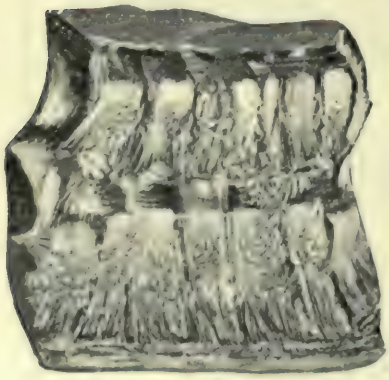

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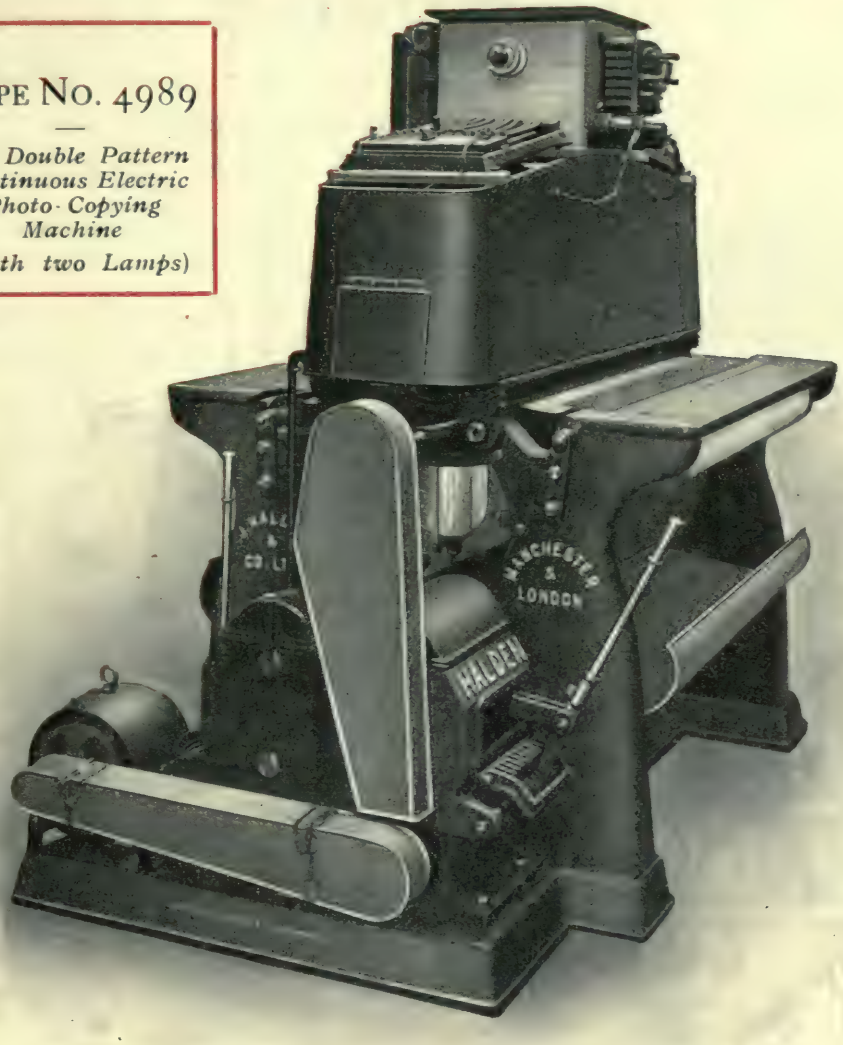

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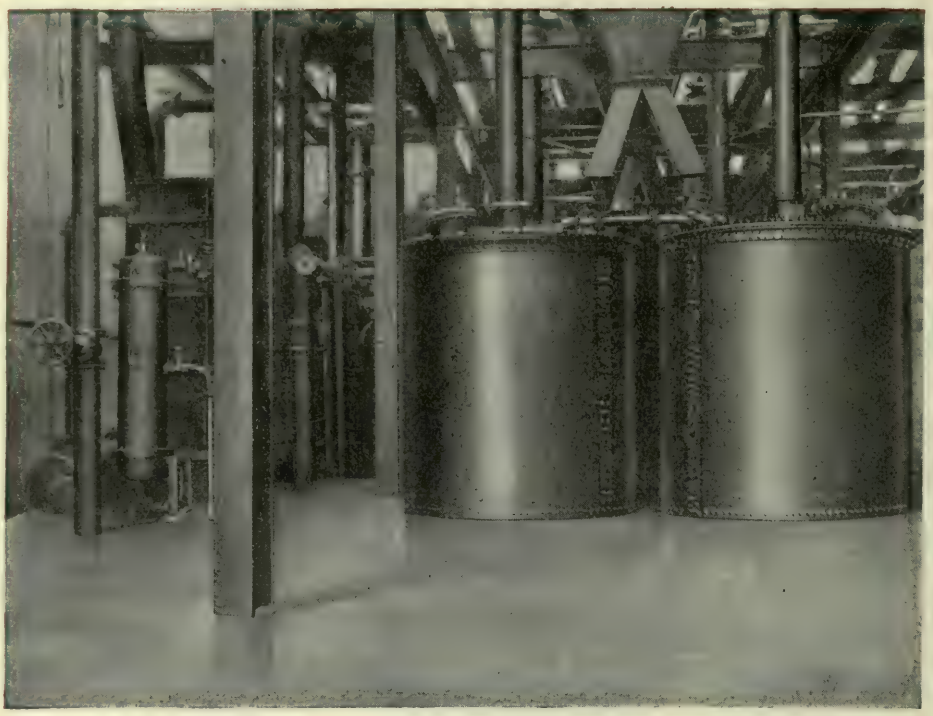

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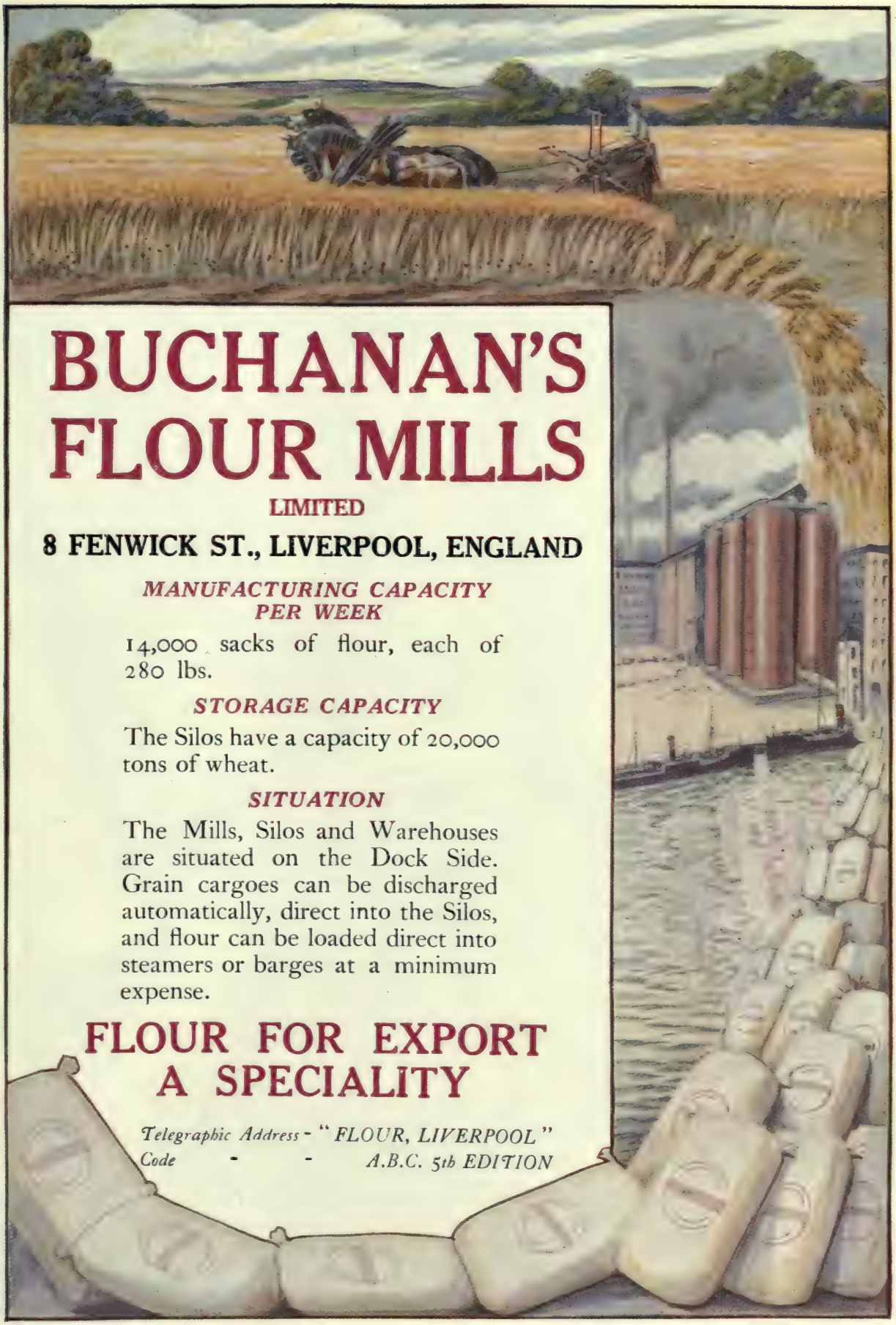
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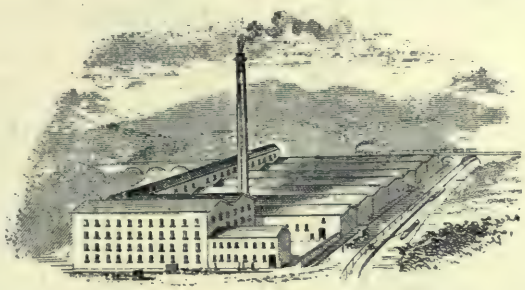

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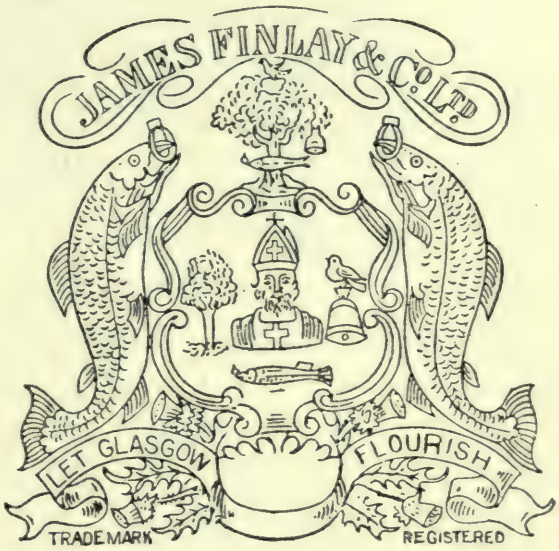

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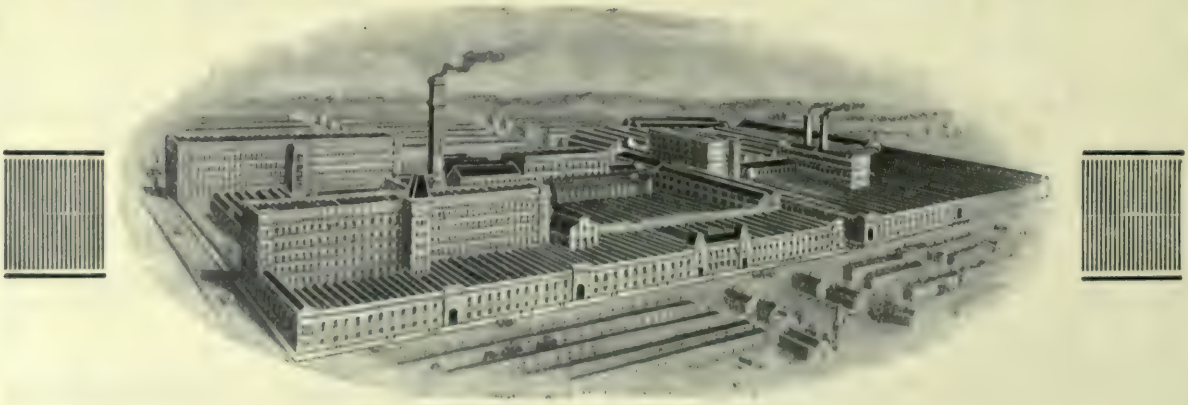

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The Tootal School of Color and Design, developed by well-known painters, is making a lasting impression on the textile industry, and enhances the superiority of Tootal manufactures.

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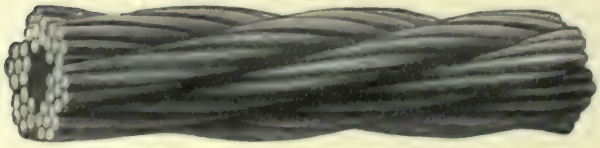

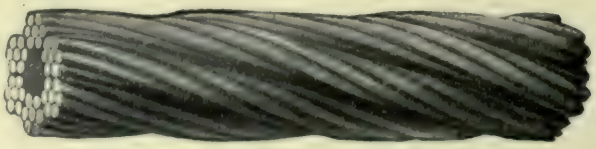

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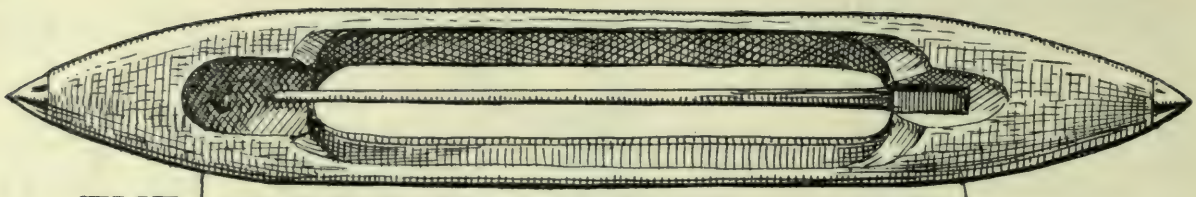

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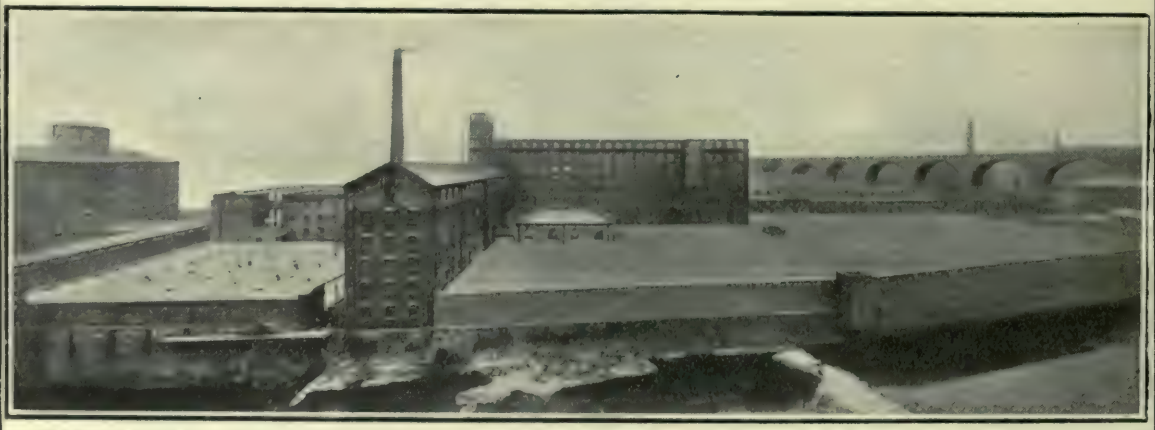

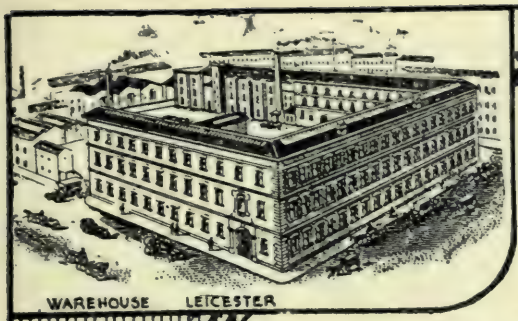

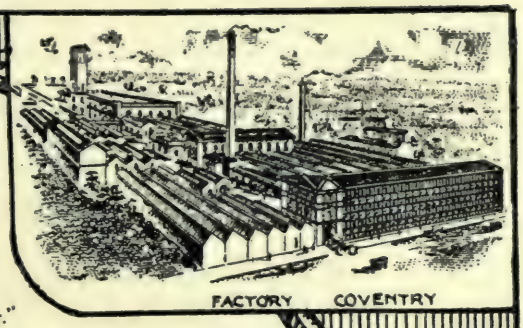

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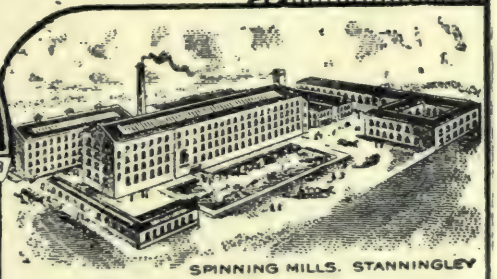

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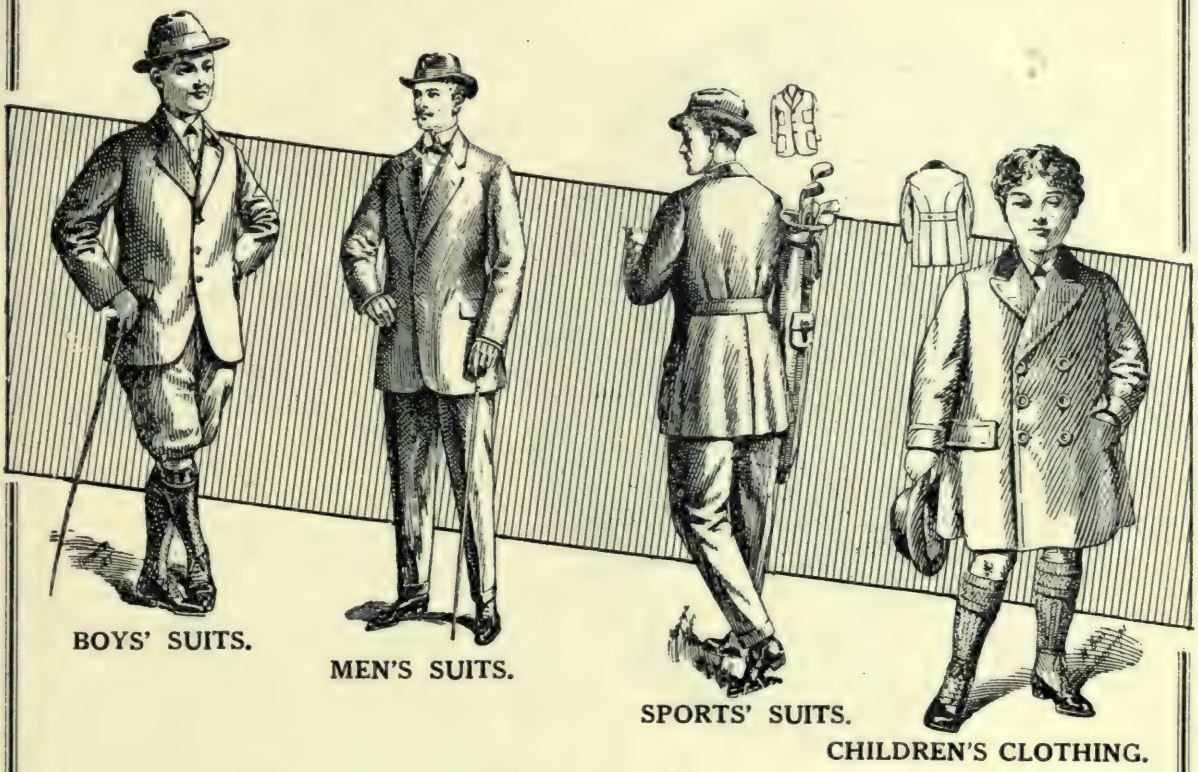

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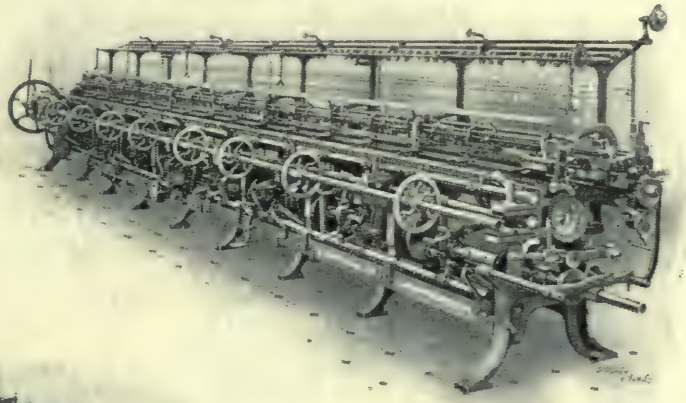

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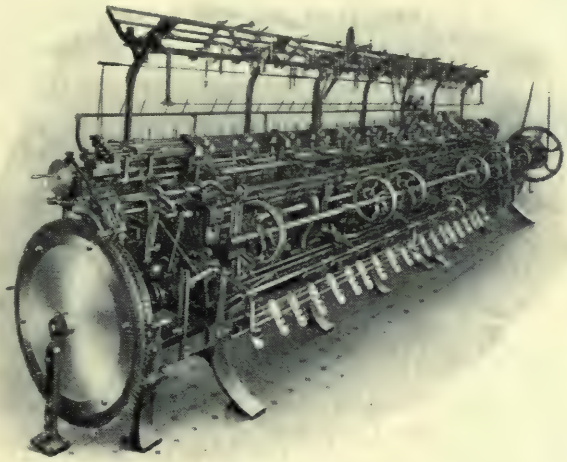

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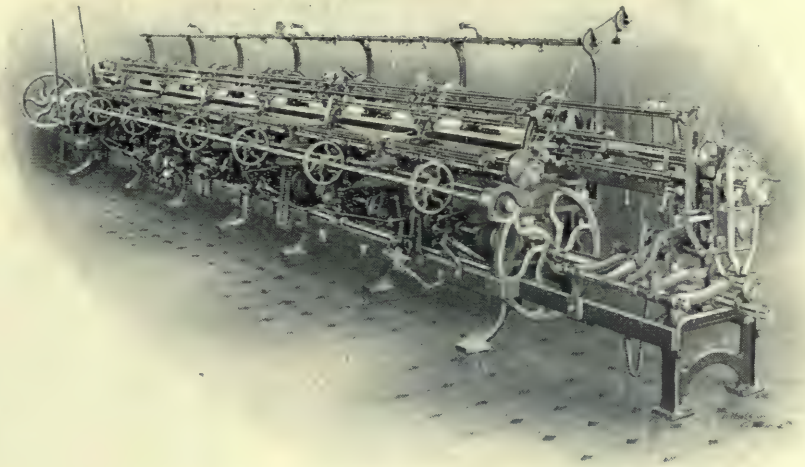

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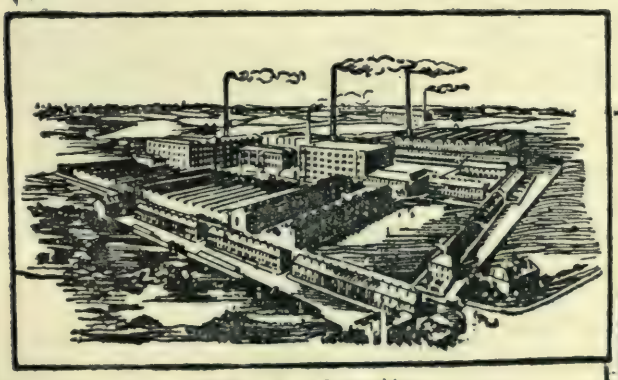

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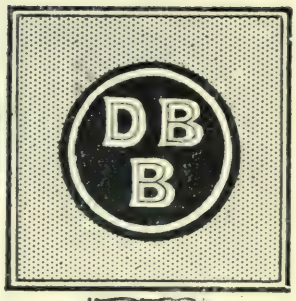

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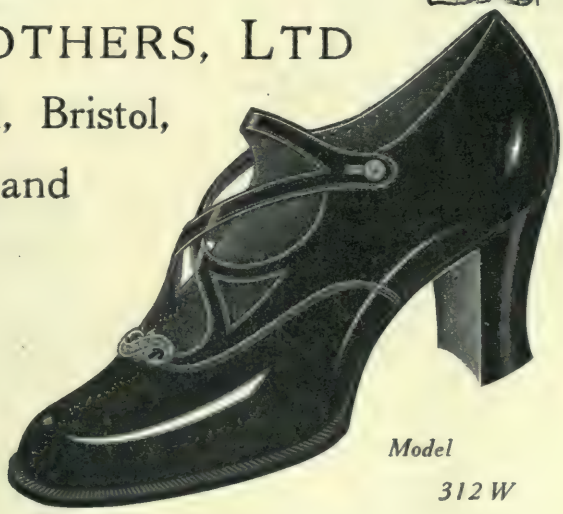

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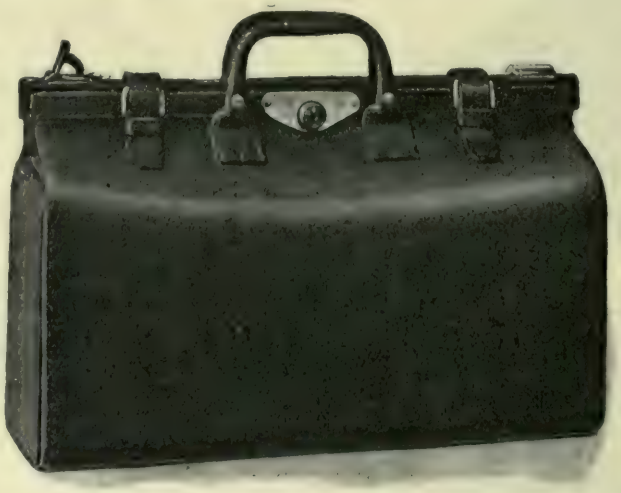

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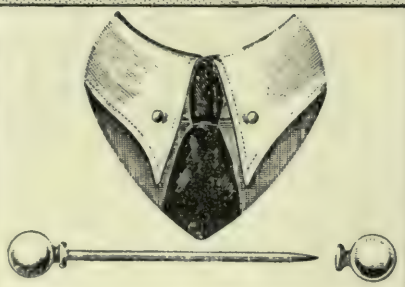

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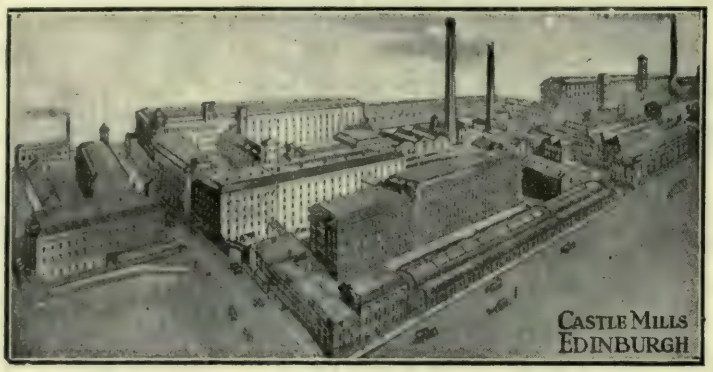

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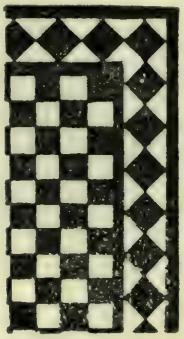

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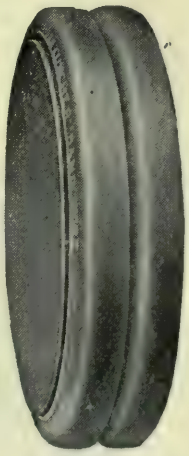

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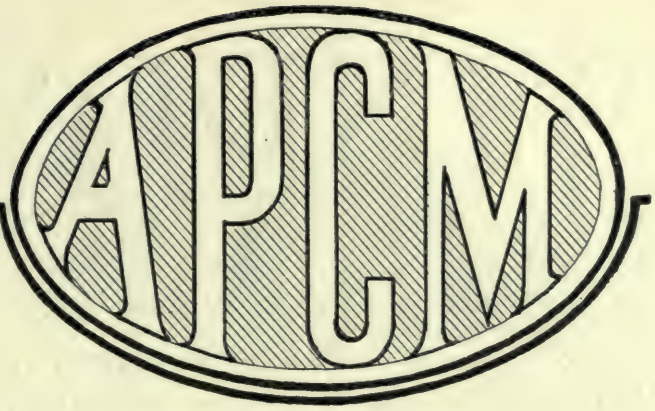

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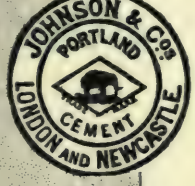

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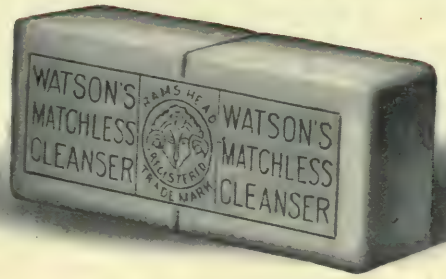

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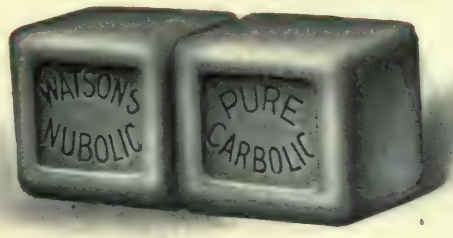

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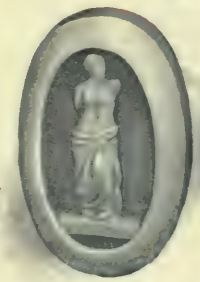

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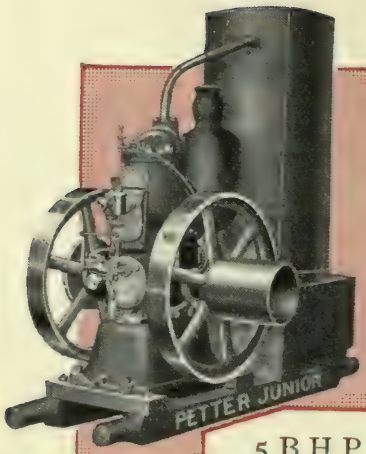

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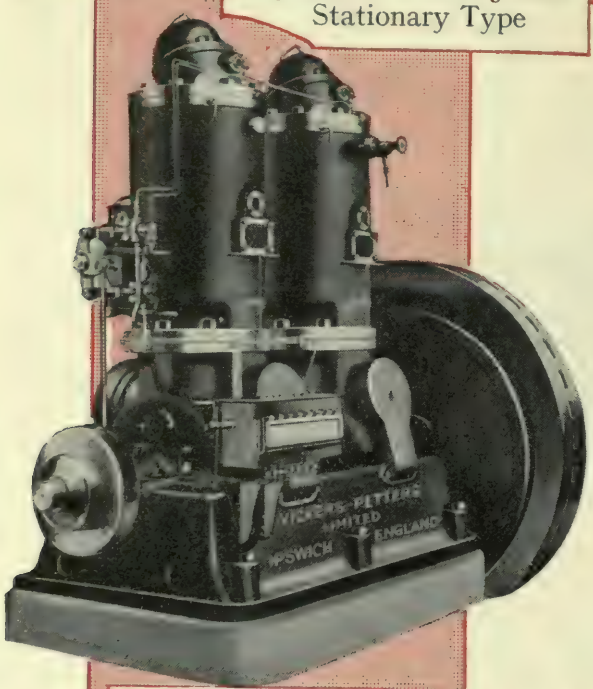

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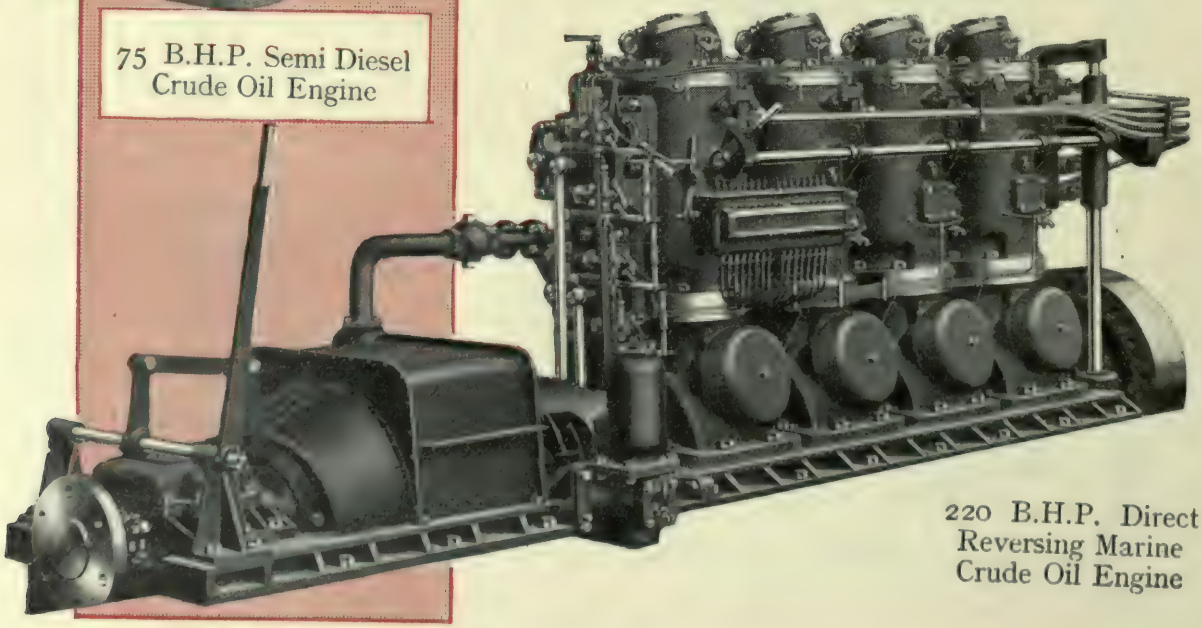

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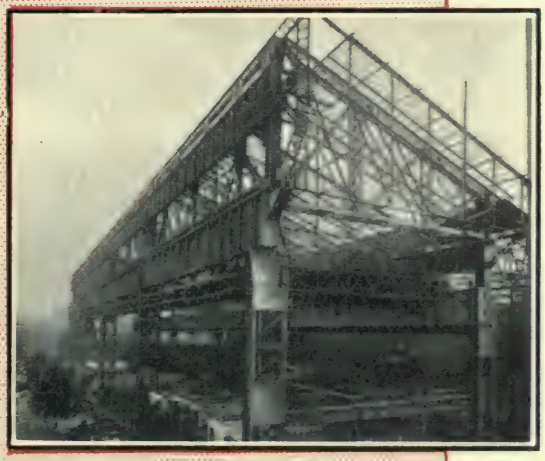

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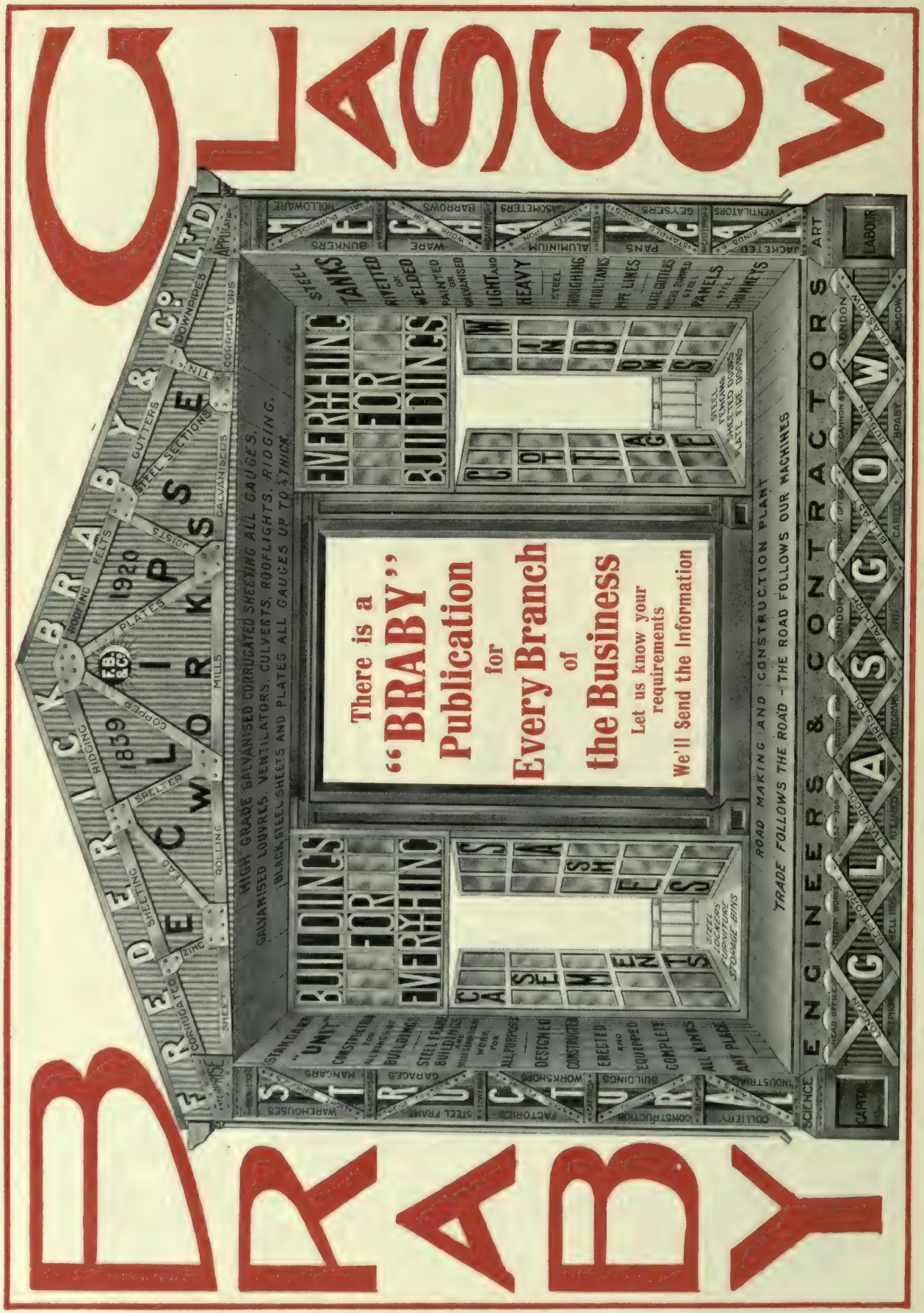
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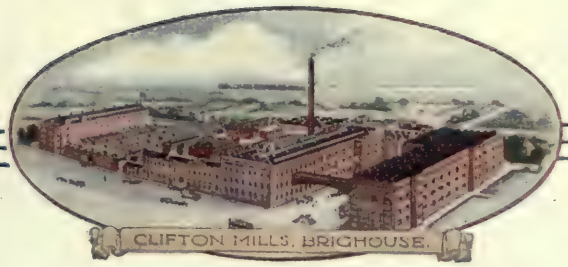

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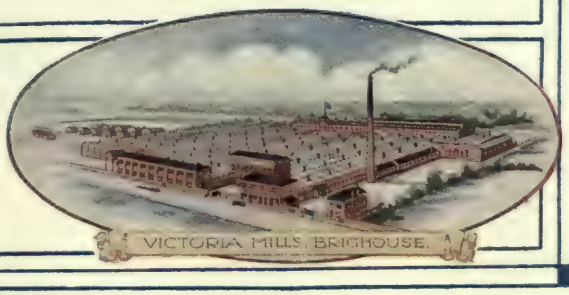

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CAPITAL SUBSCRIBED	(Dec., 1919)	£58,878,400
CAPITAL PAID UP	do.	9,420,544
RESERVE FUND	do.	9,675,105
DEPOSITS, &c.	do.	325,938,436
ADVANCES, &c.	do.	135,763,591

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Capital Paid Up - - -	**2,148,890**
Reserve Fund and Surplus Profits - - -	**1,514,288**
Deposits, etc., at 31st Dec., 1919 - - - -	**67,530,621**

302 BRANCHES AND SUB-BRANCHES

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Reserve Fund - - £1,550,000

Deposits - - - - £59,108,849

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Advances - - - - £23,172,182

31st Dec., 1919

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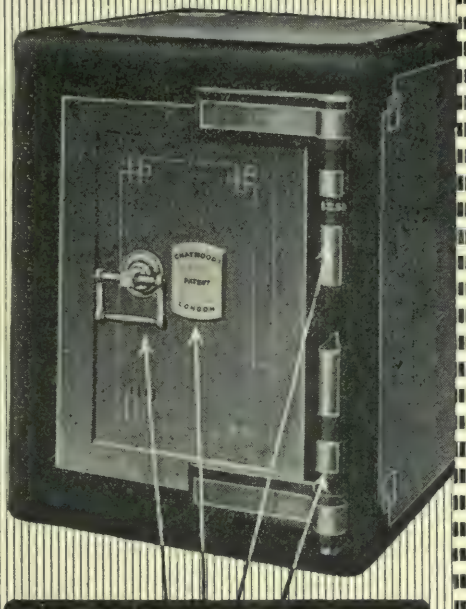

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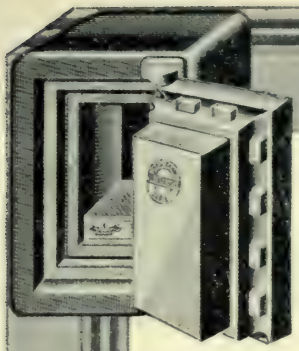

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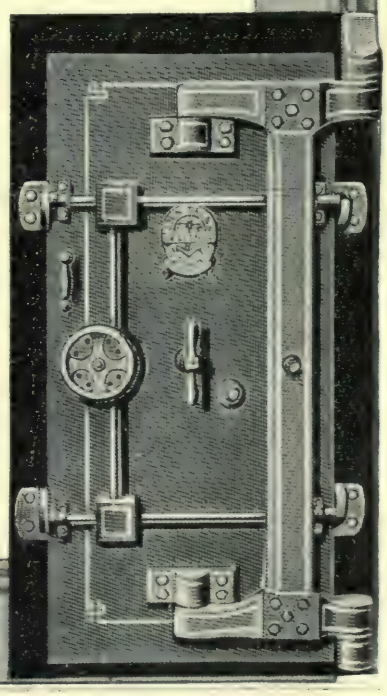

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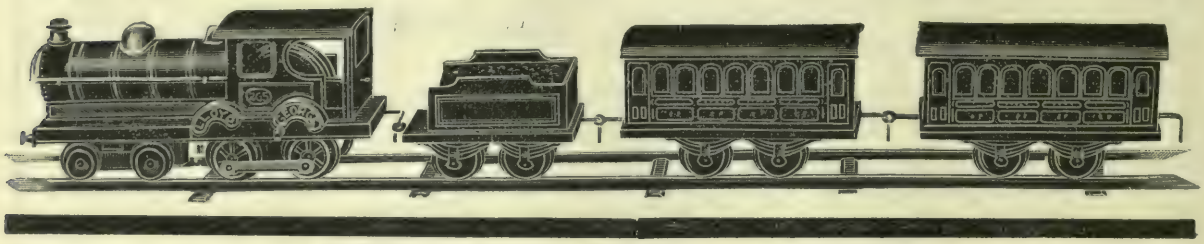

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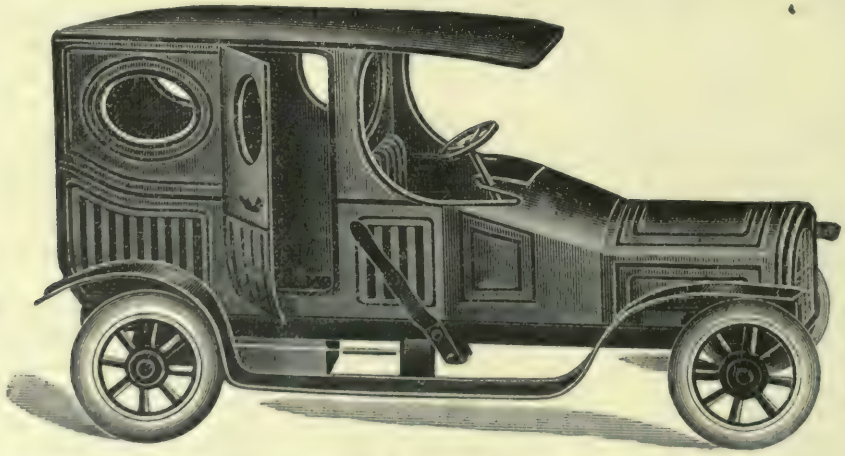

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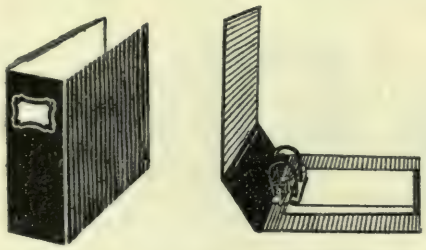

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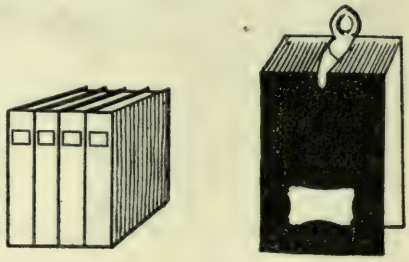

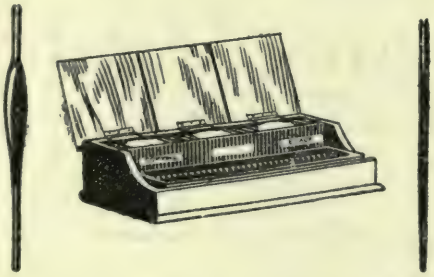

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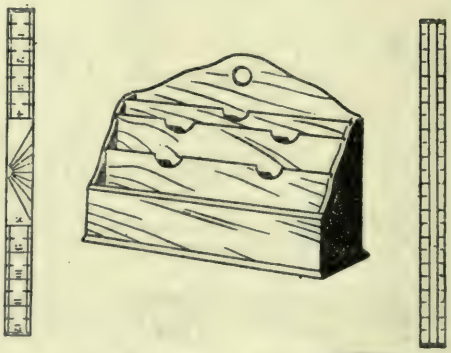

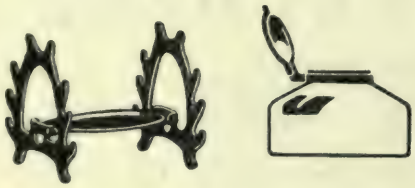

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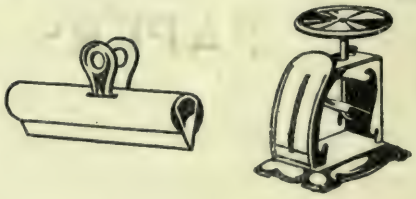

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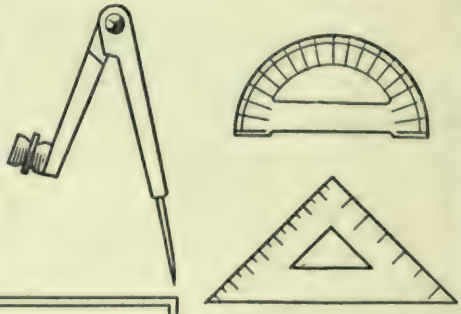

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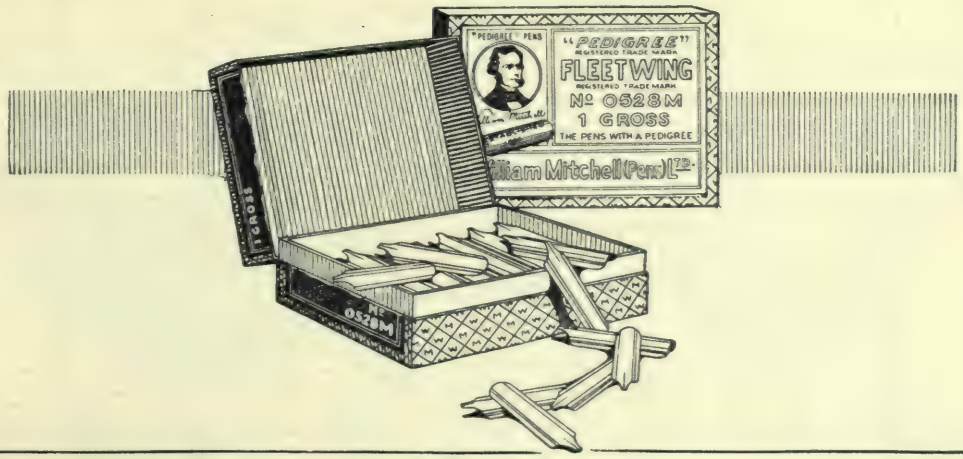

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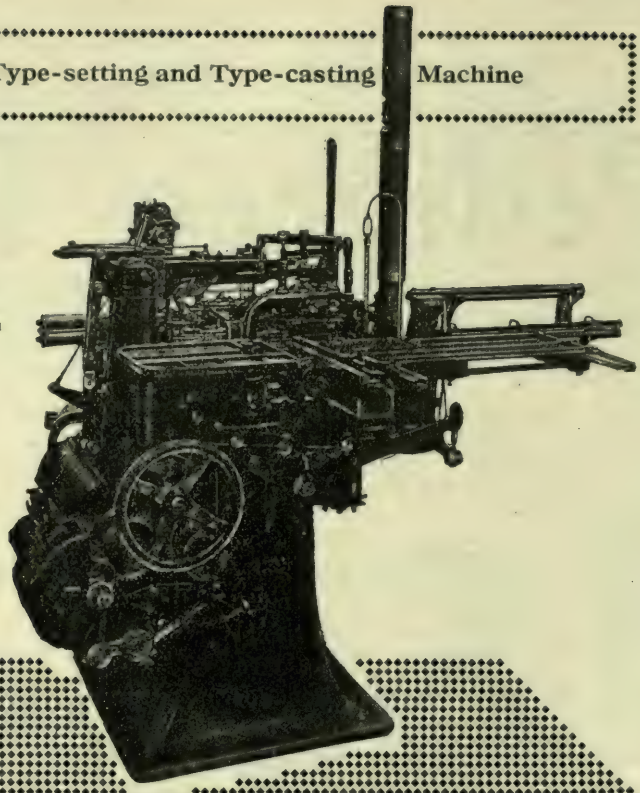

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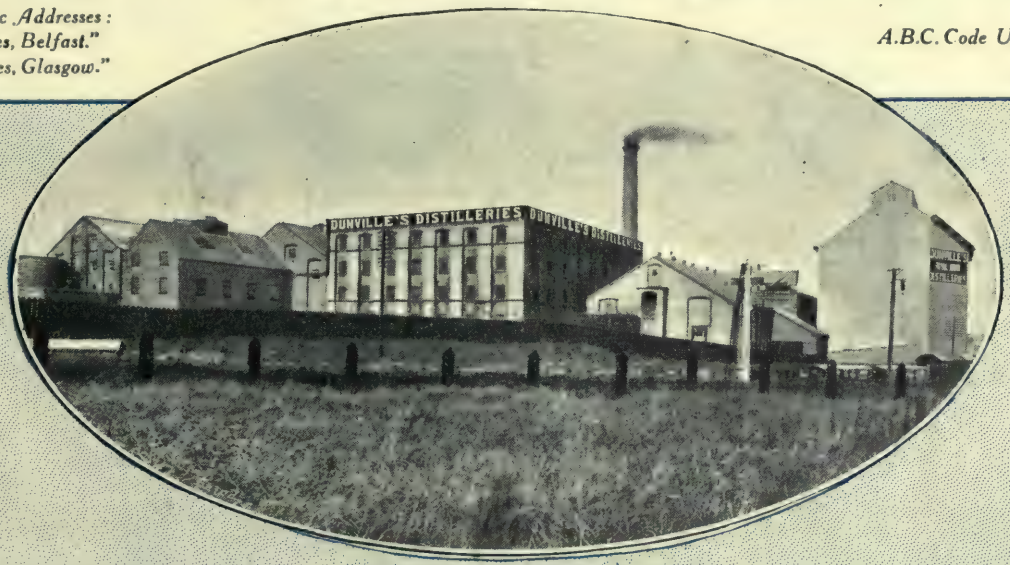

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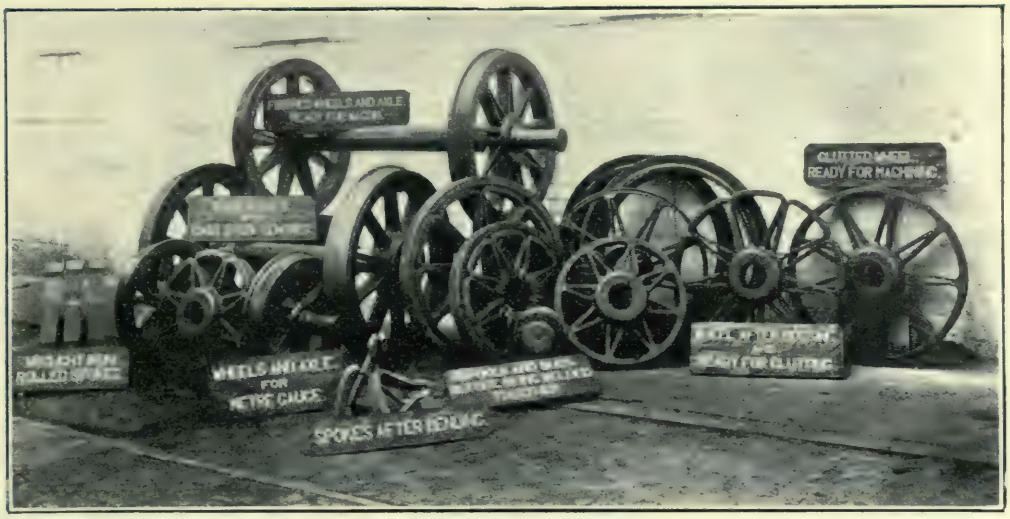

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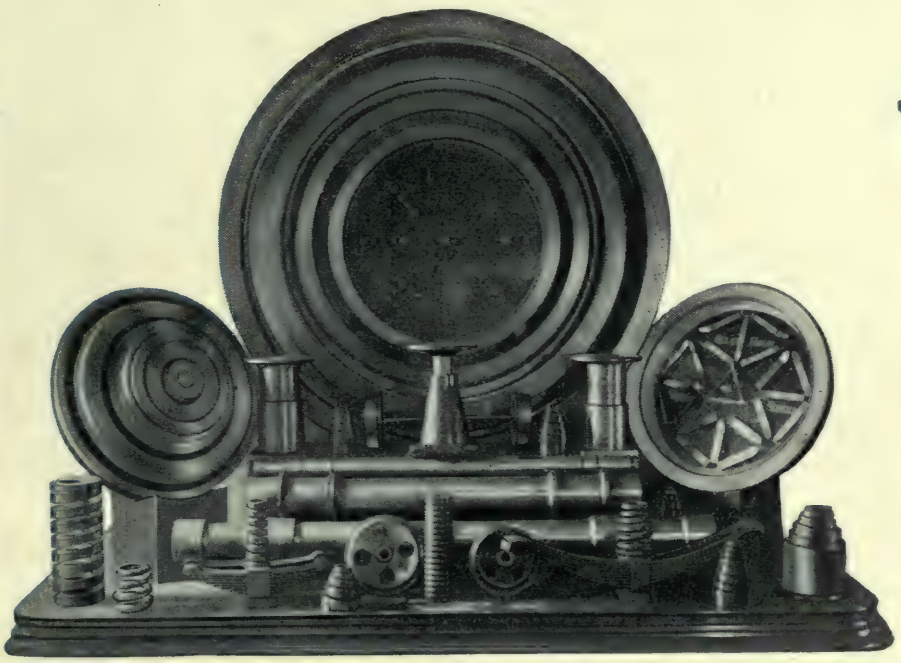

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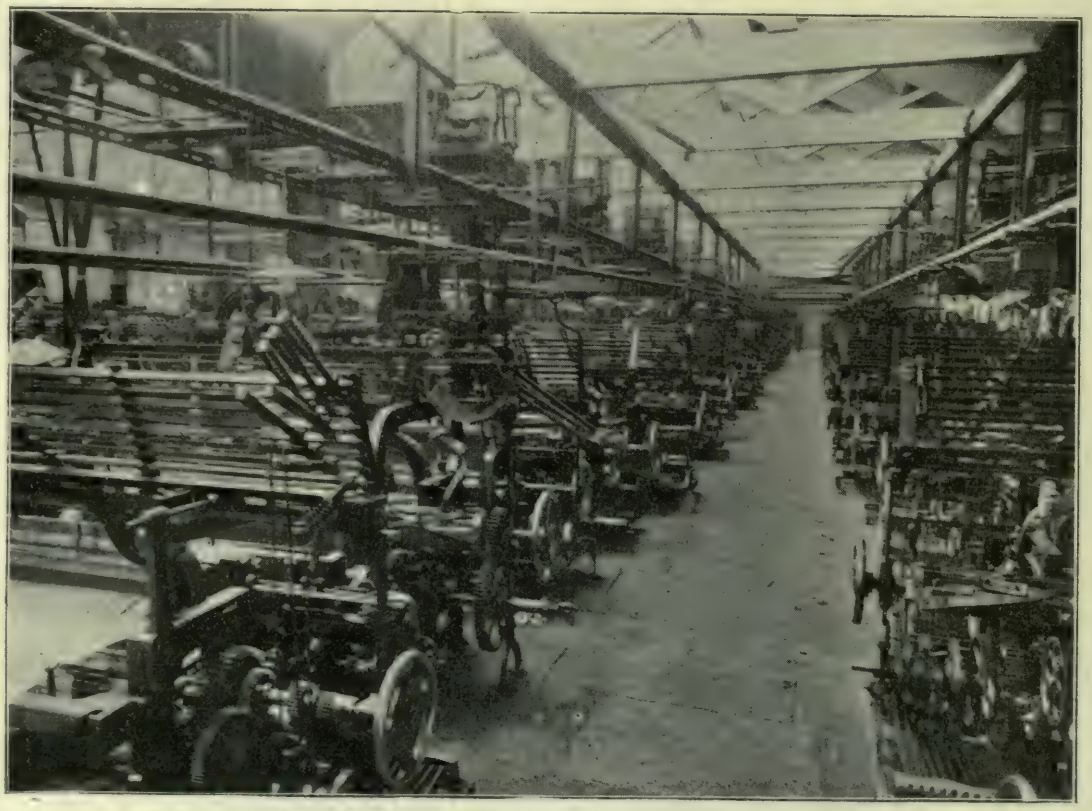

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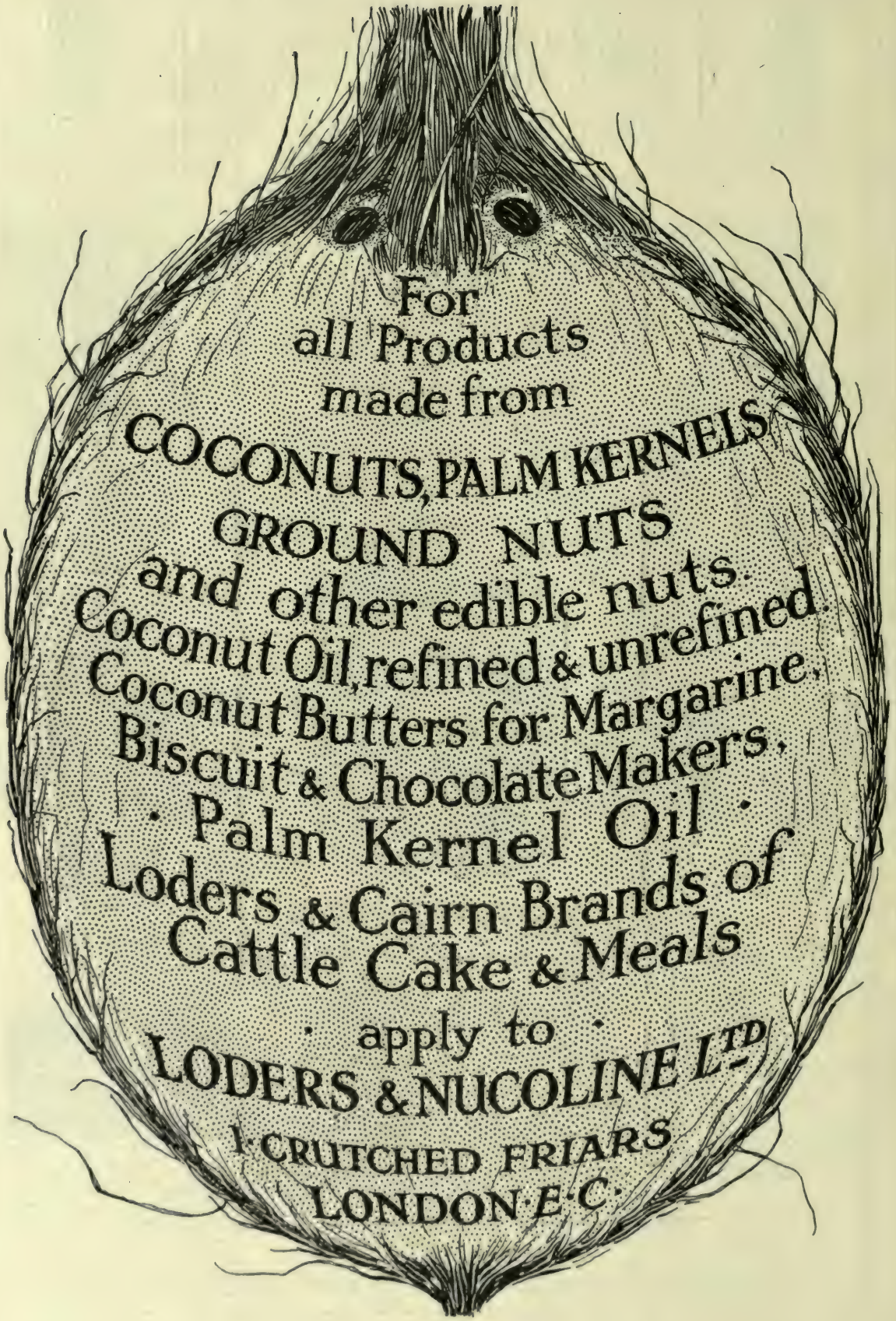
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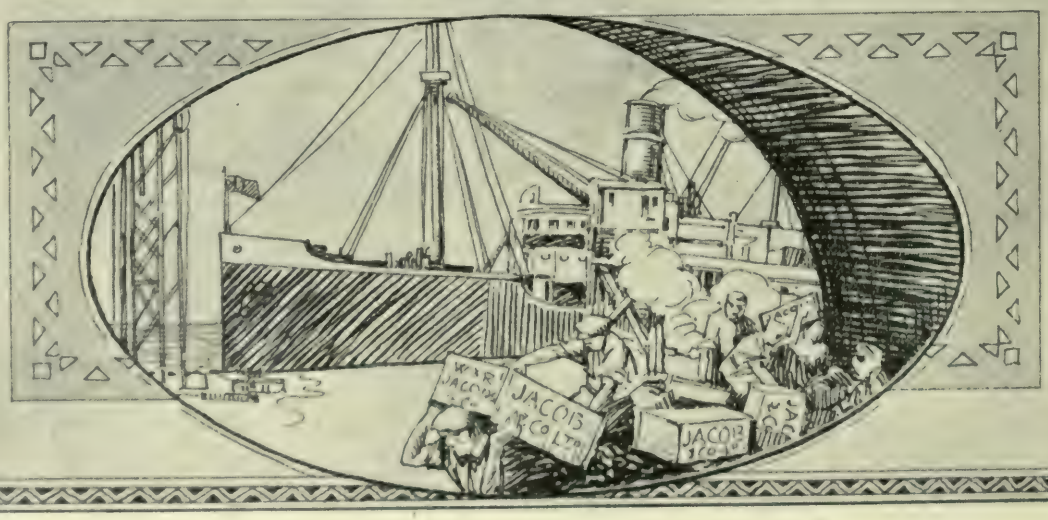

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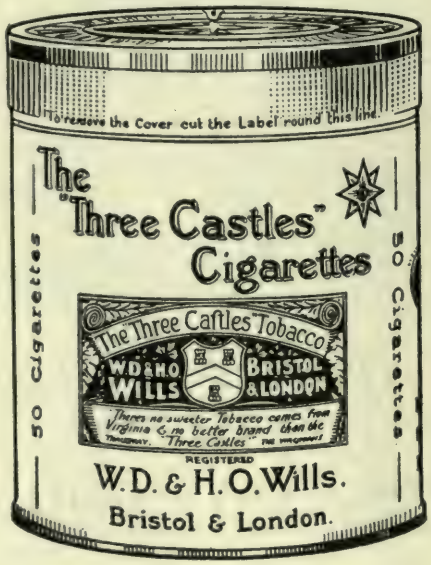

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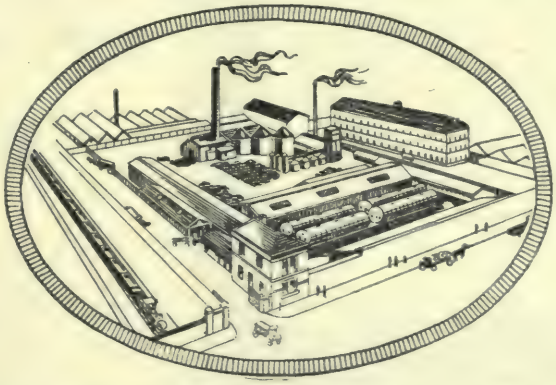

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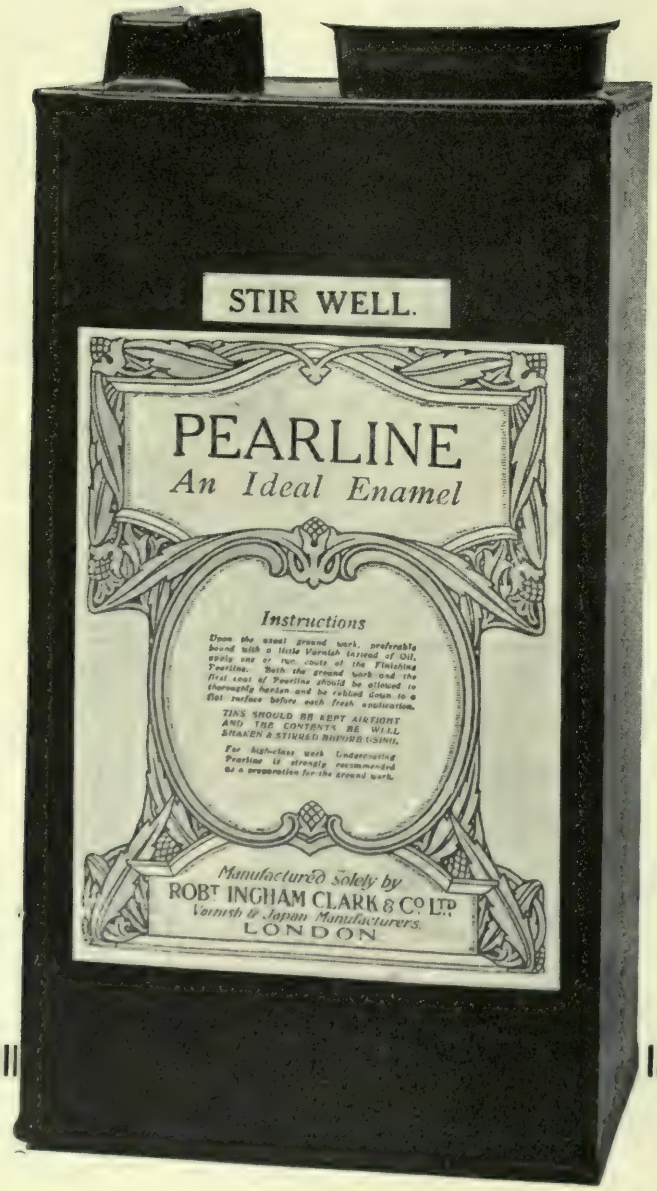

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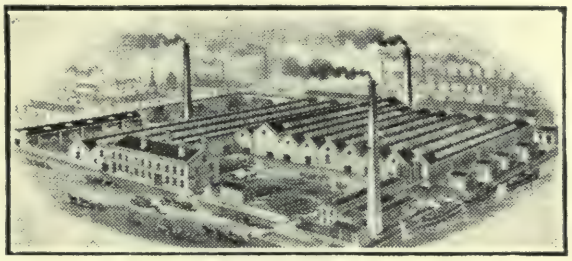

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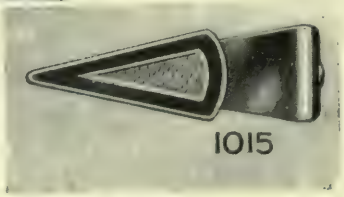

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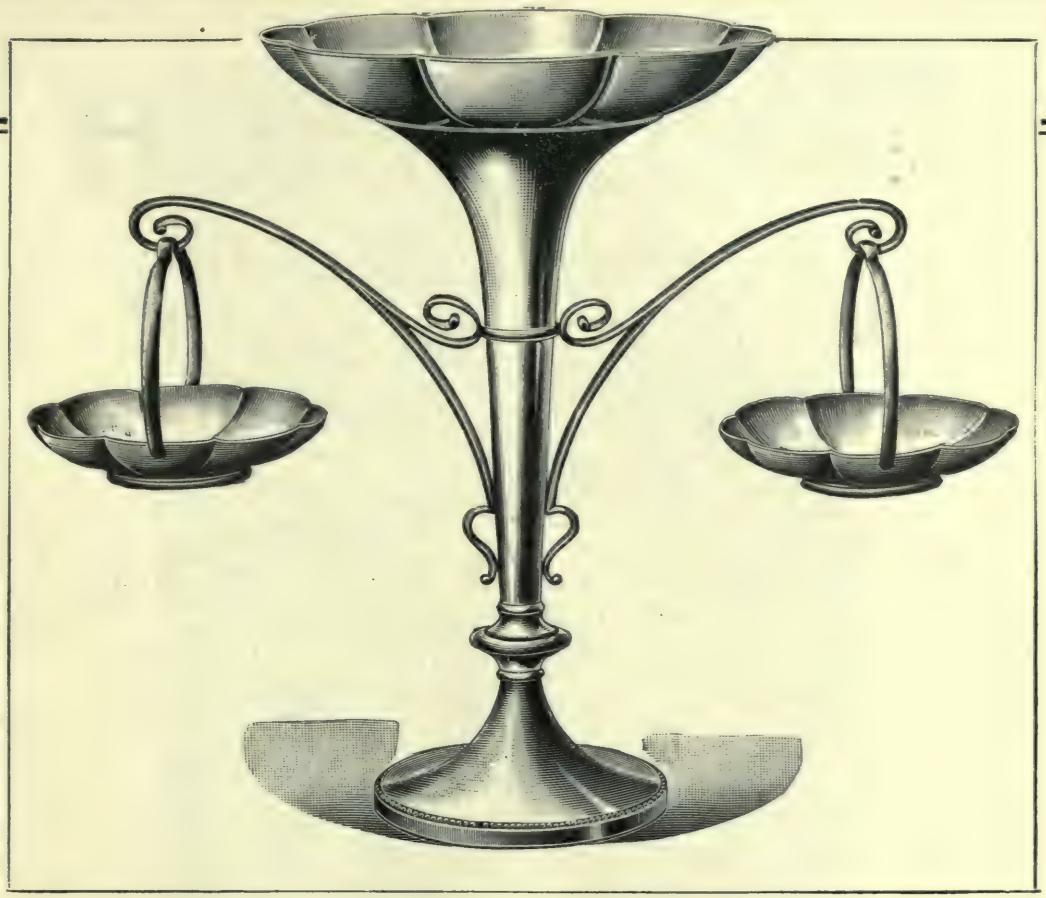

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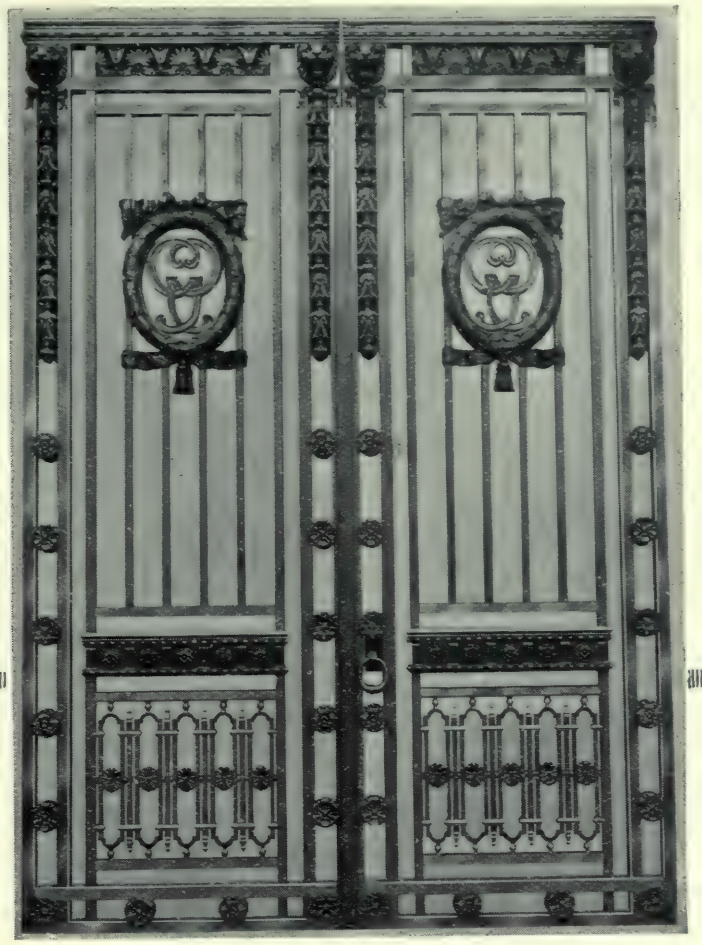

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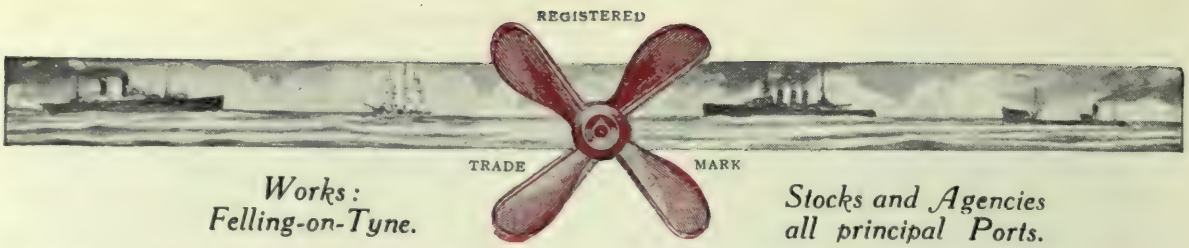

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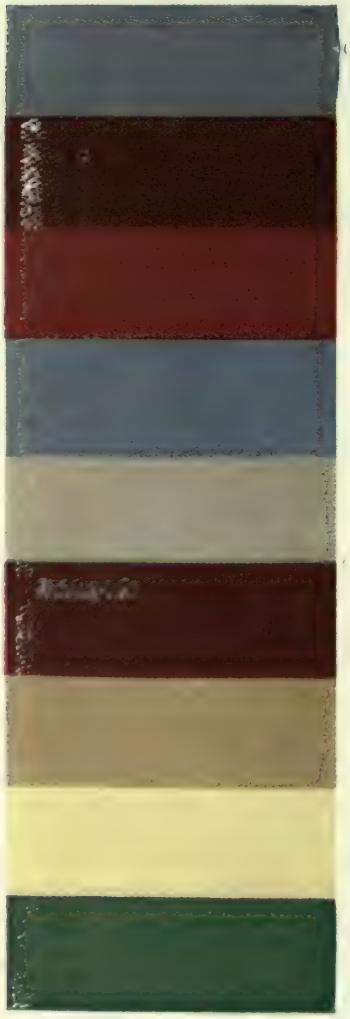

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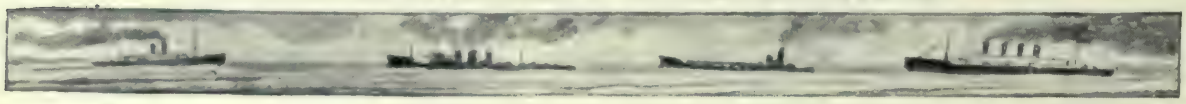

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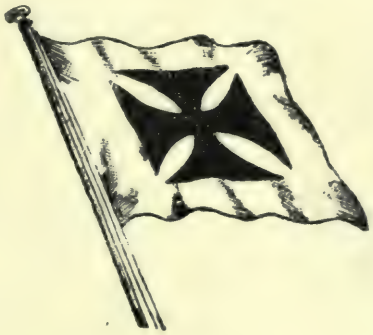

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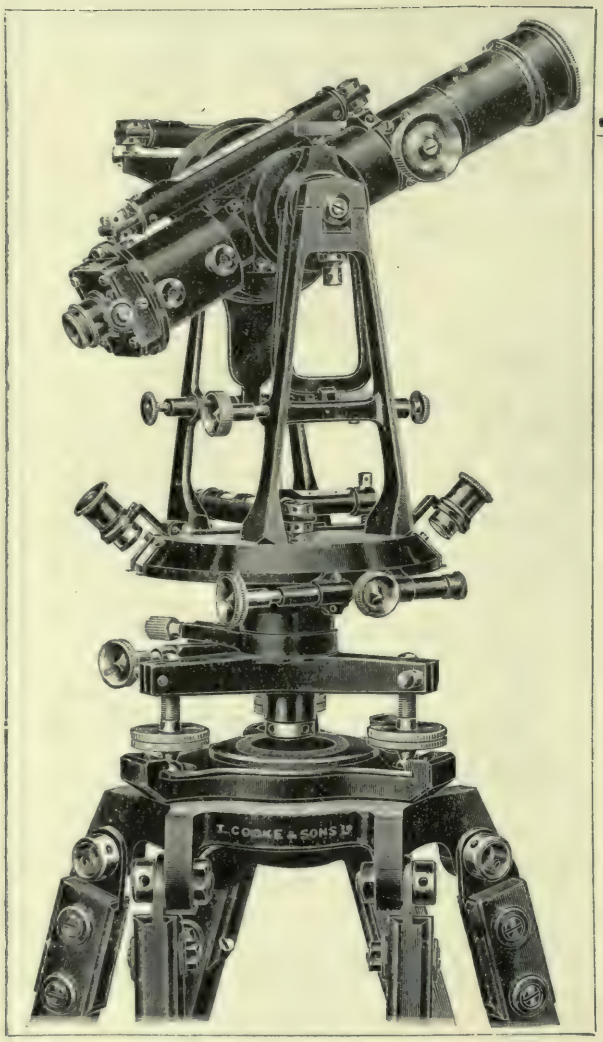

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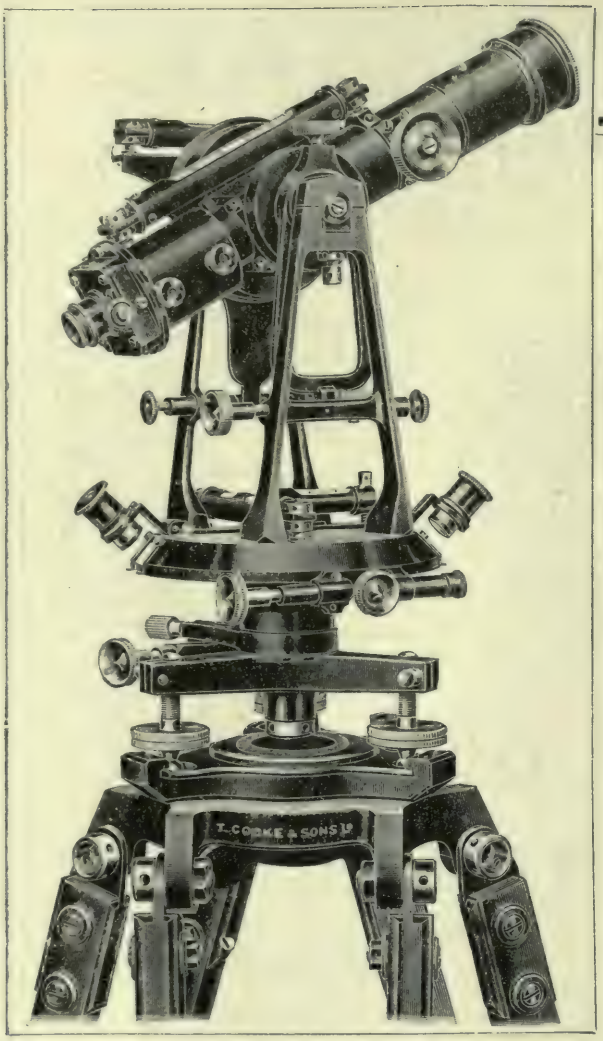

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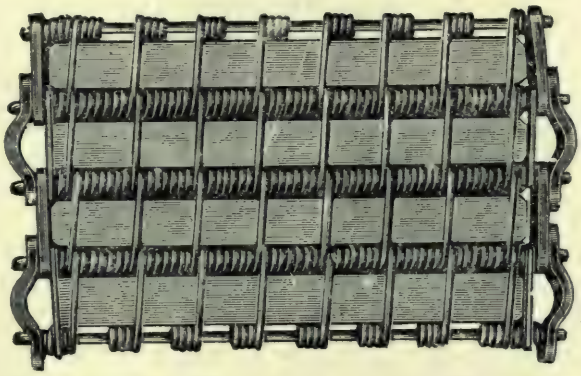

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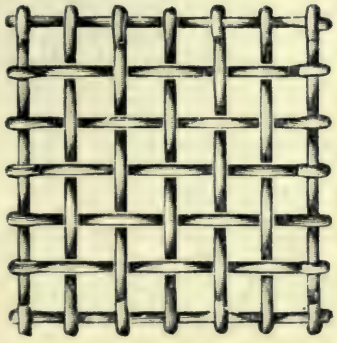

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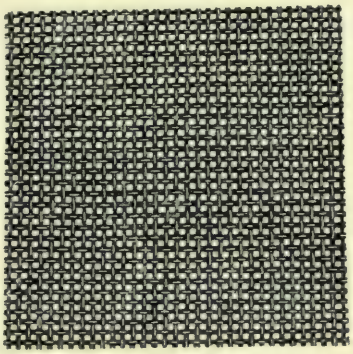

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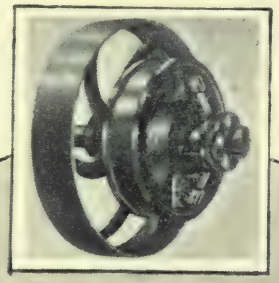

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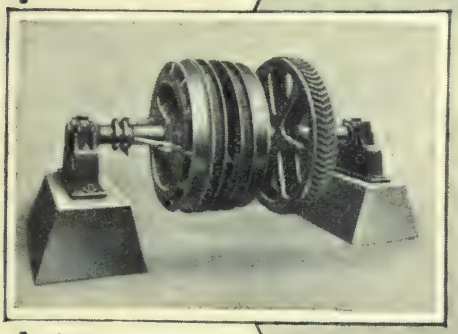

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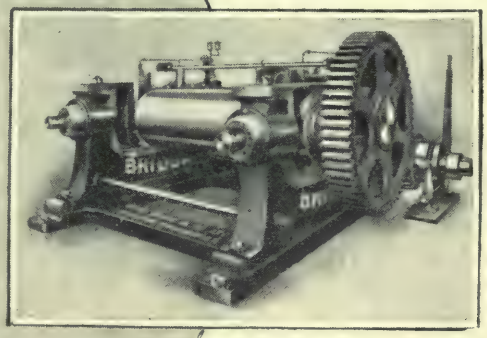

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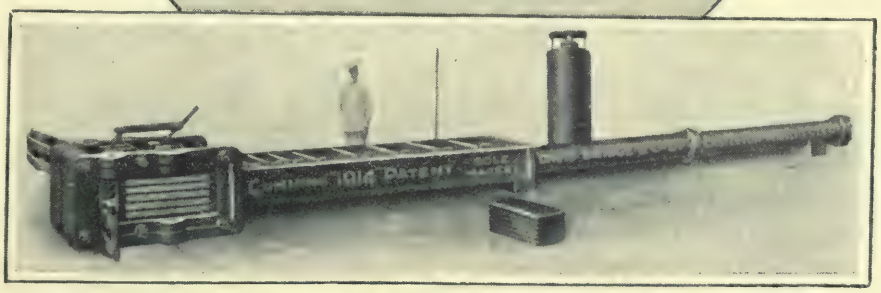

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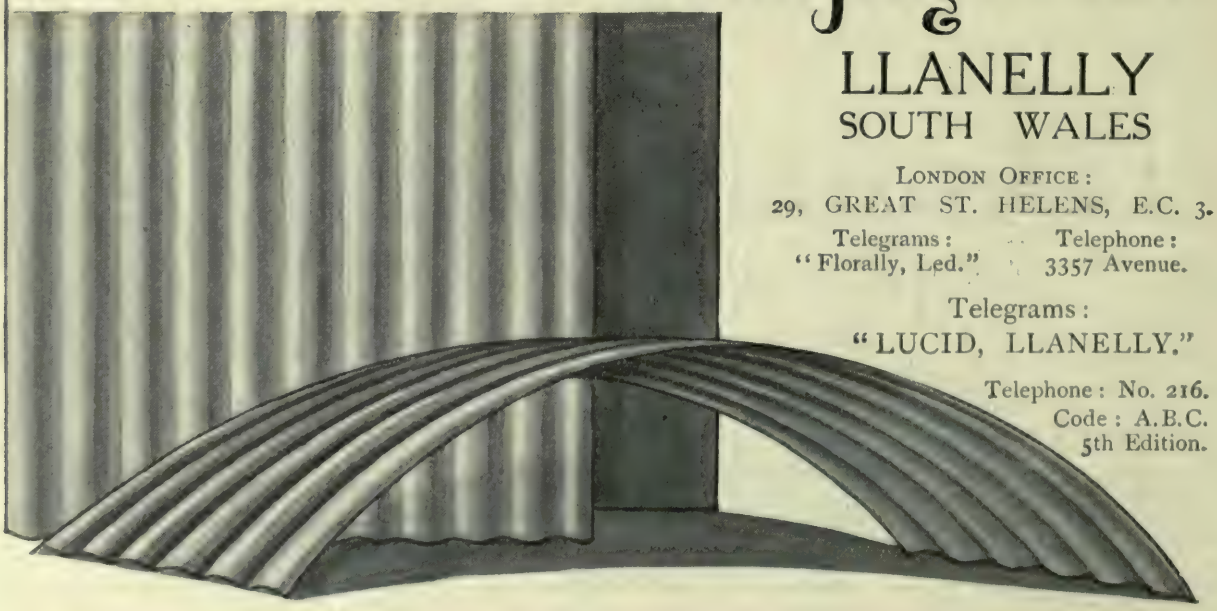

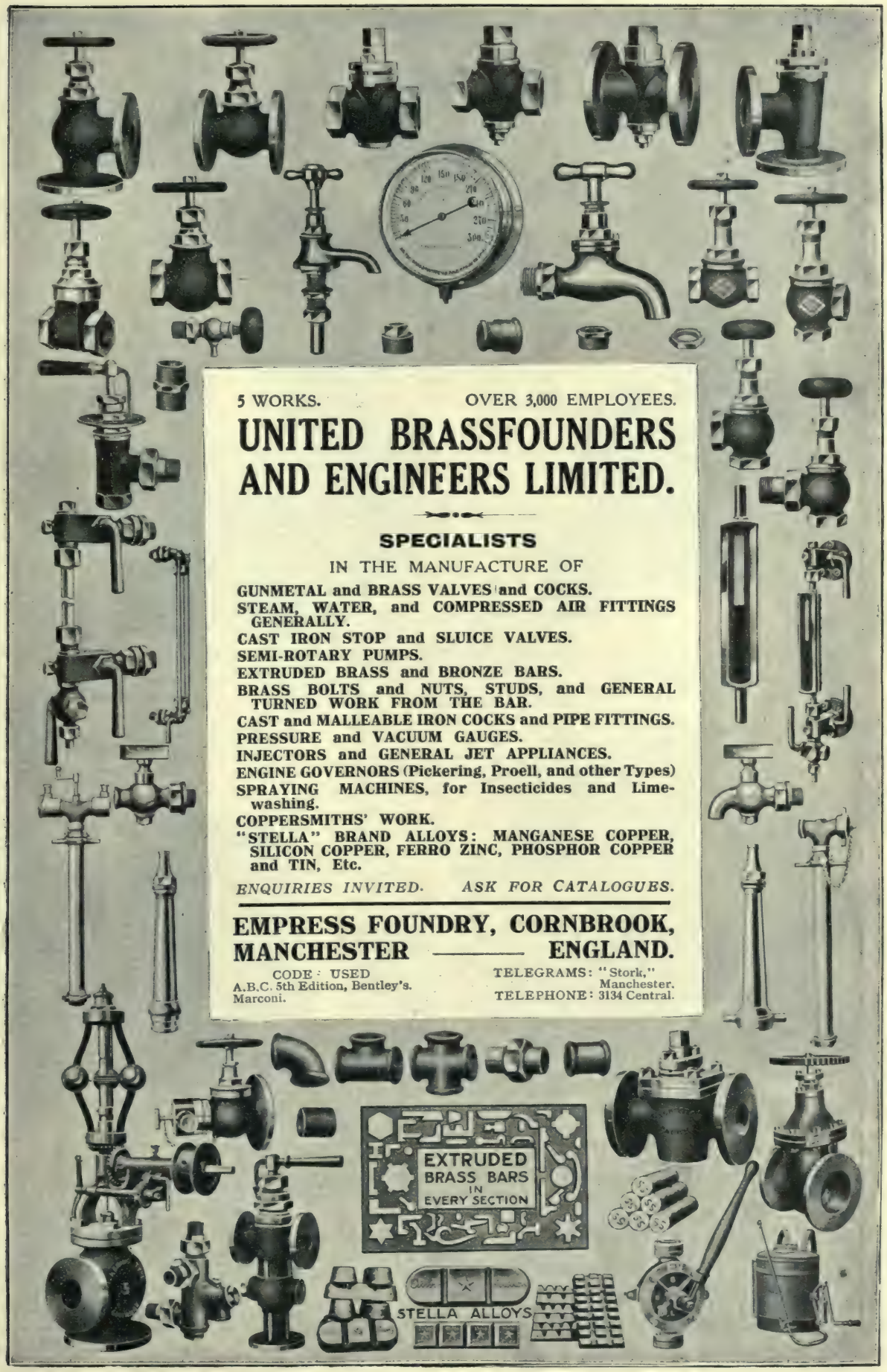

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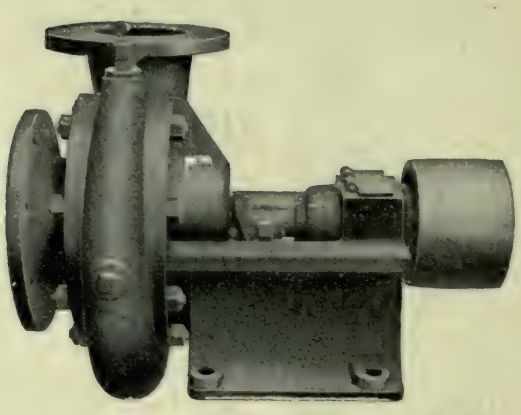

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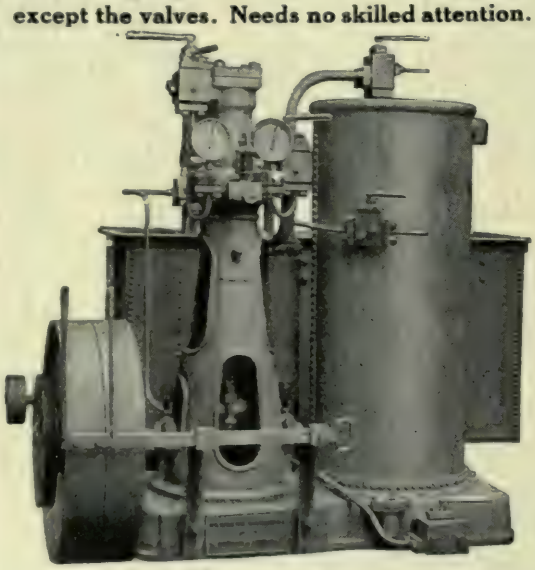

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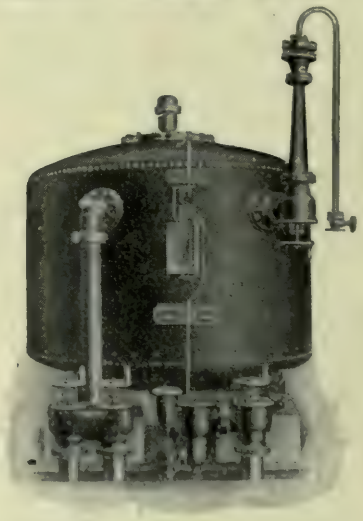

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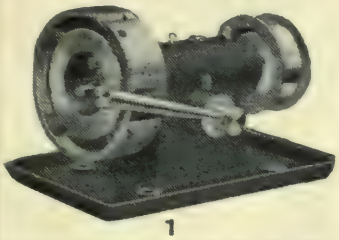
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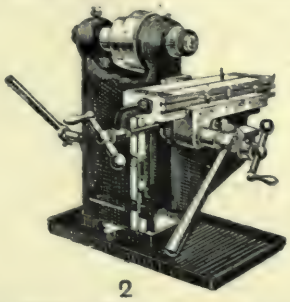
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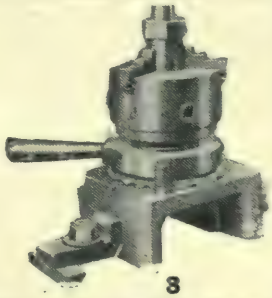
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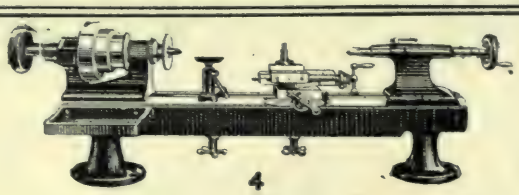
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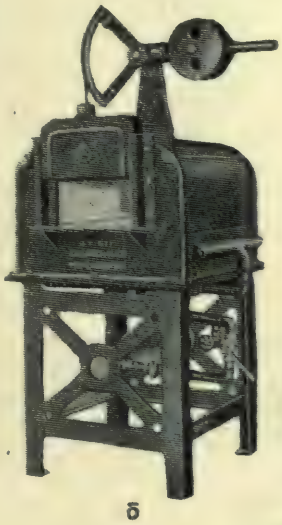
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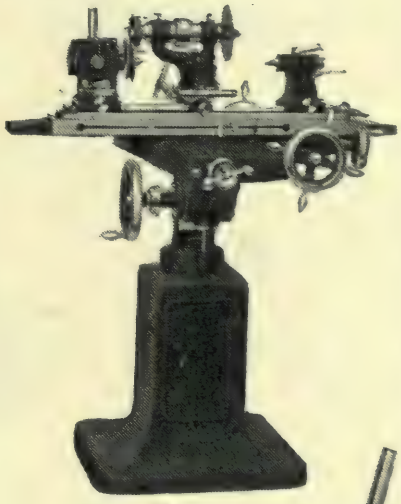
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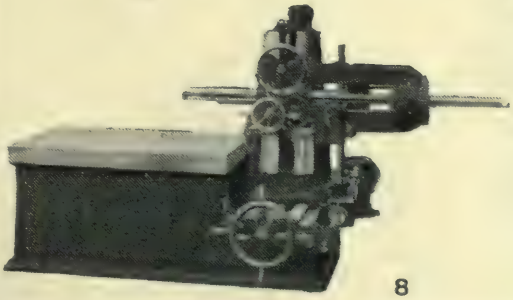
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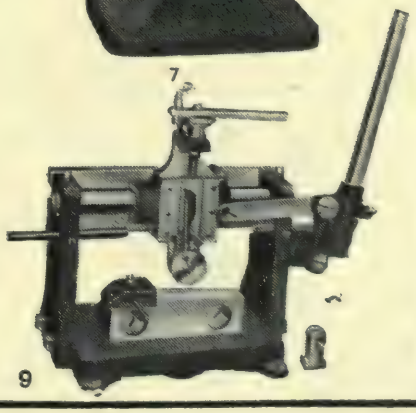
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Fig. 4 Fig. 5

Fig. 200

Fig. 50

Fig. 261

Fig. 250

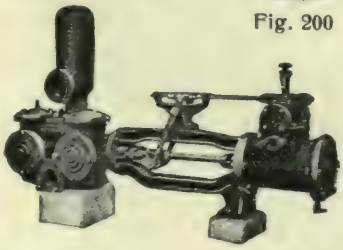

Fig. 1001. Bucket Type. 300 ft. Series

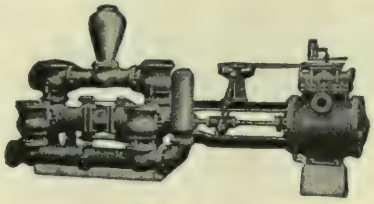

Fig. 1071. Ram Type. 600 ft. Series

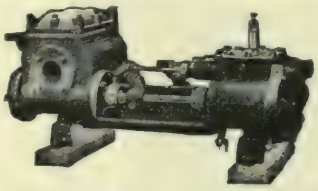

Fig. 1400. Plunger Type.
For Water and Steam pressures, 180 lbs. per square inch.

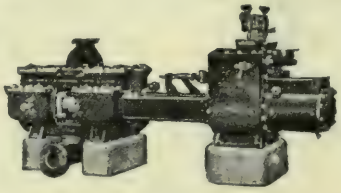

Fig. 1421. Ram Type.
For Water pressure, 260 lbs. Steam pressure, 200 lbs. per square inch.

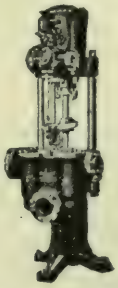

Fig. 1039. Simple Cylinder.

Fig. 1226. Double Acting Ram. For head, 100 ft.

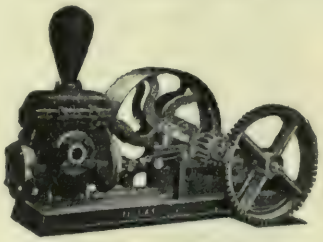

Fig. 1183. Bucket Type.
For heads, 100 to 150 ft.

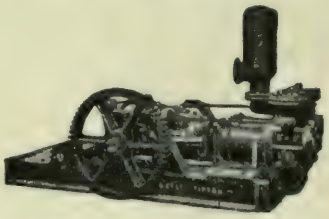

Fig. 1195. Treble Ram Type
For heads, 300 ft.

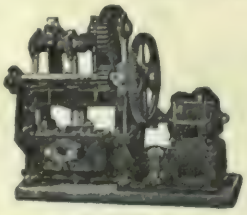

Fig. 1191. Treble Rams.
For head, 300 ft.

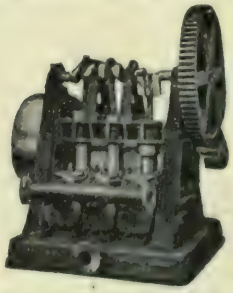

Fig. 1193. Treble Rams.
For head, 600 ft.

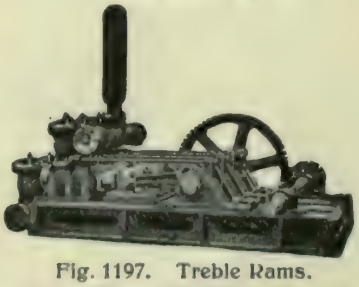

Fig. 1197. Treble Rams.
For head, 1,200 ft.

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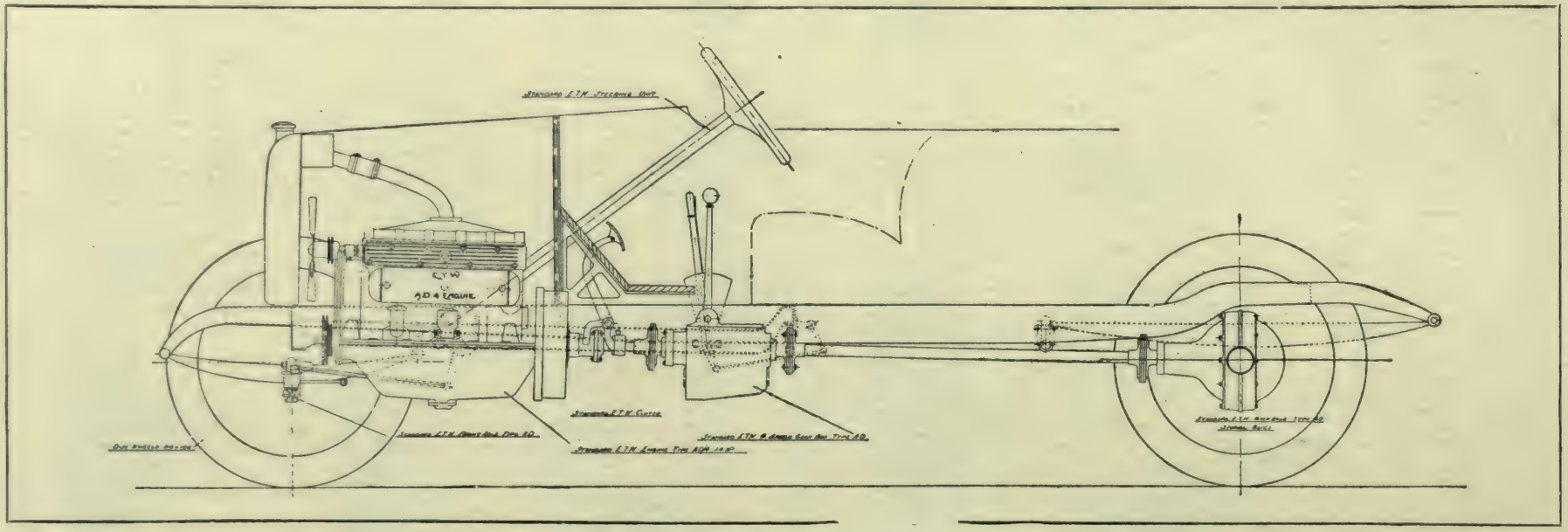

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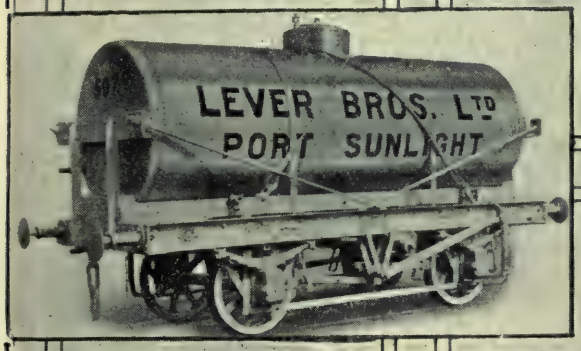

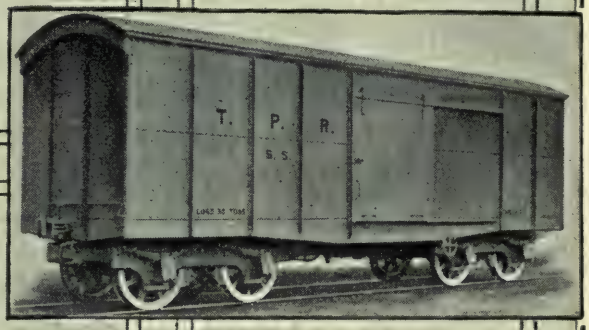

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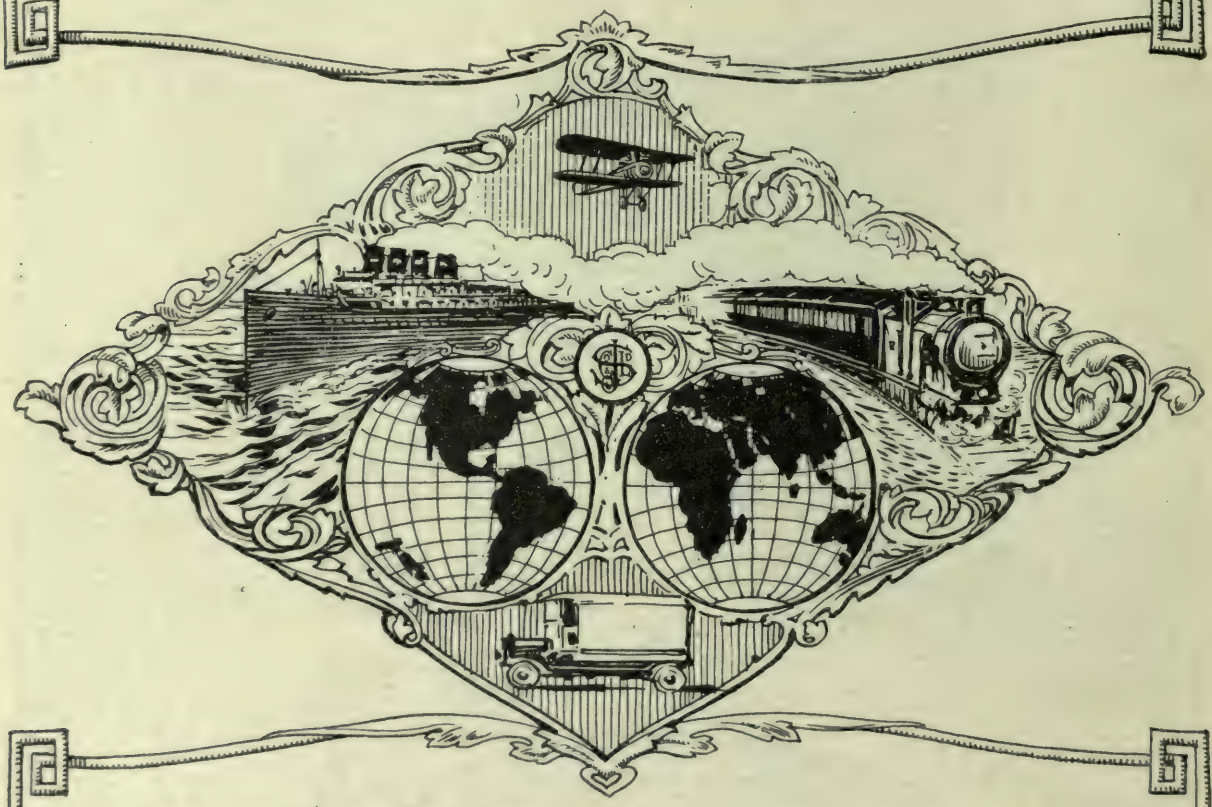

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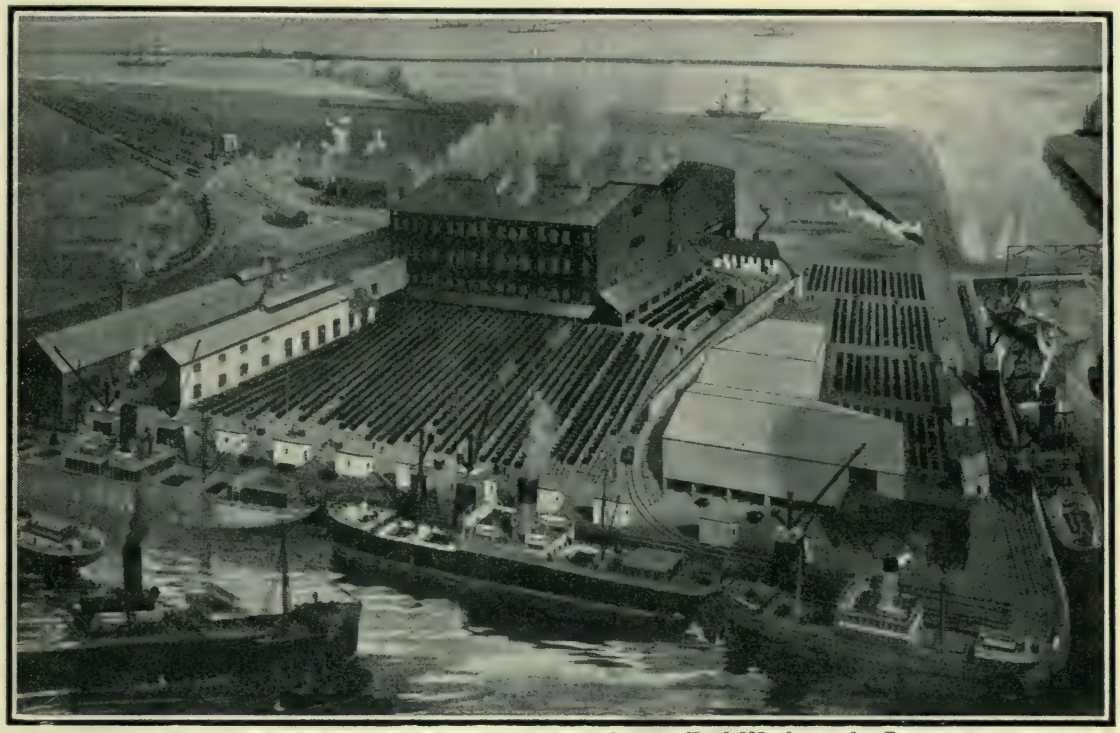

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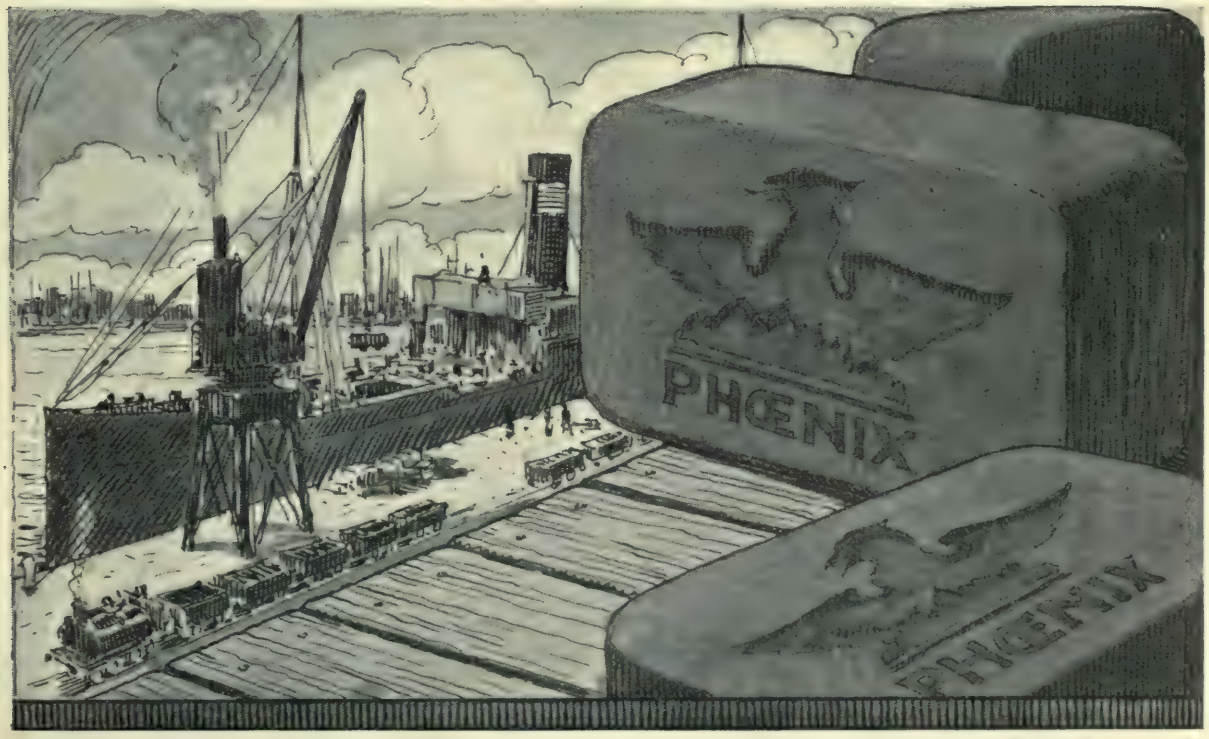

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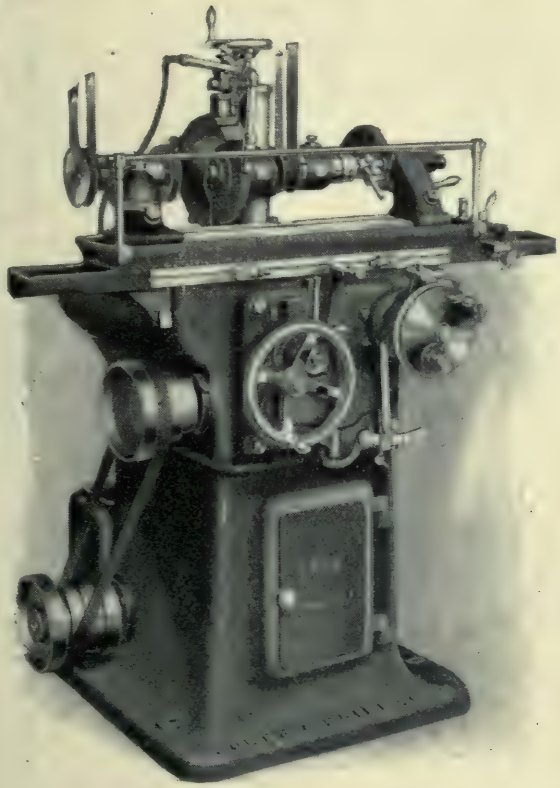

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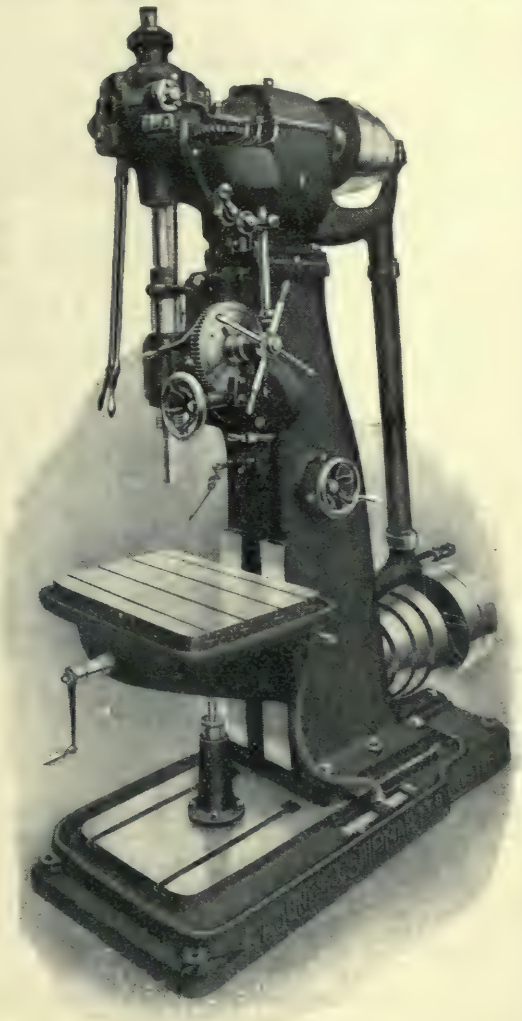

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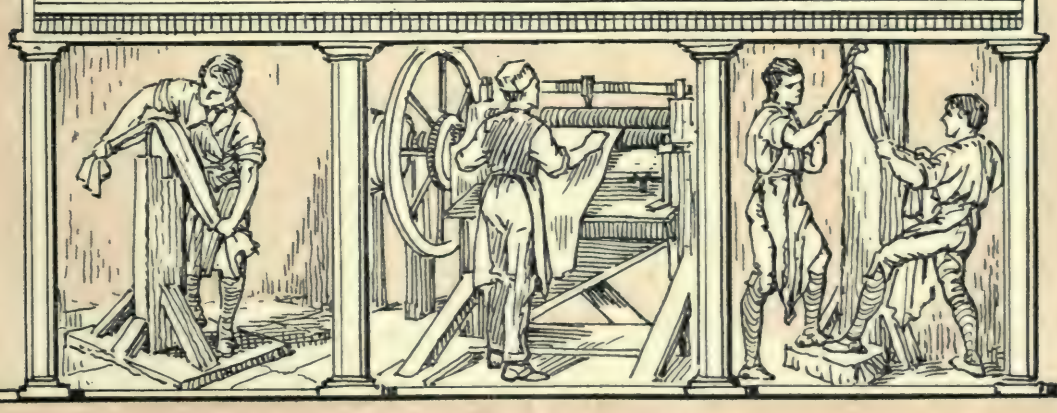

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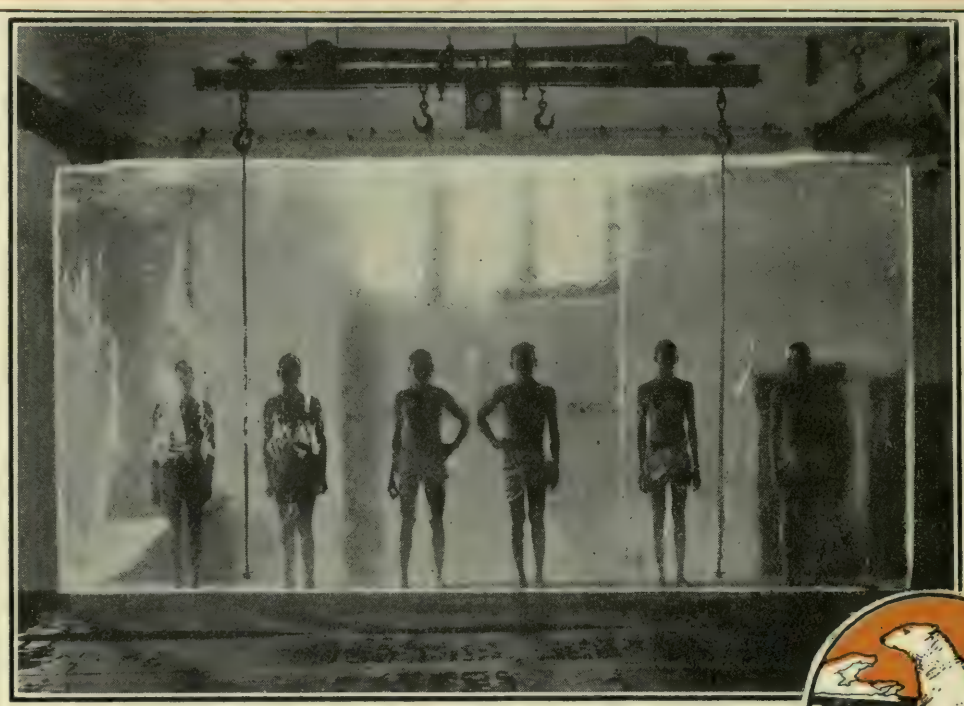

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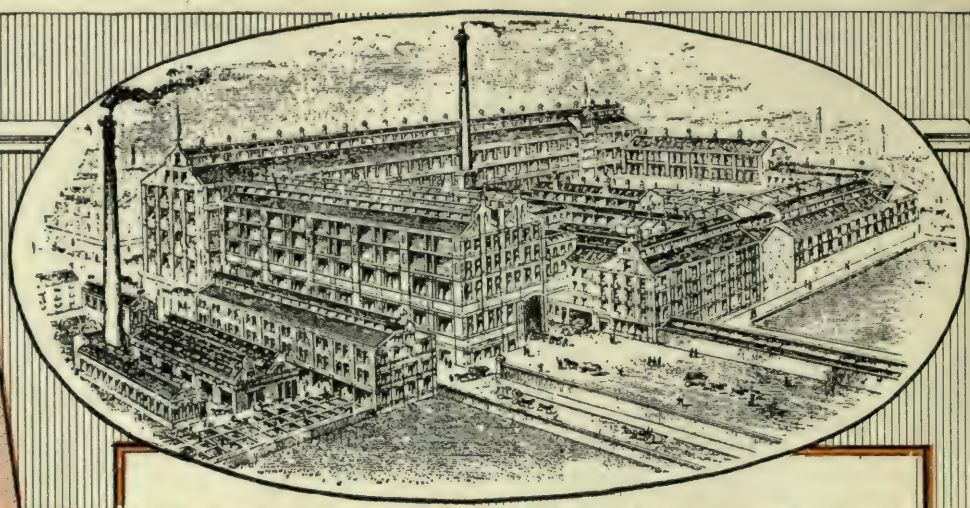

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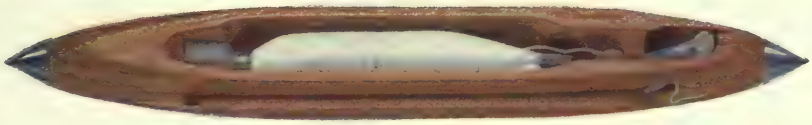

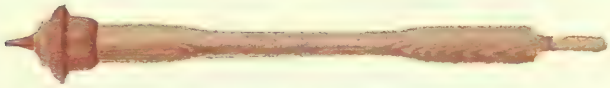

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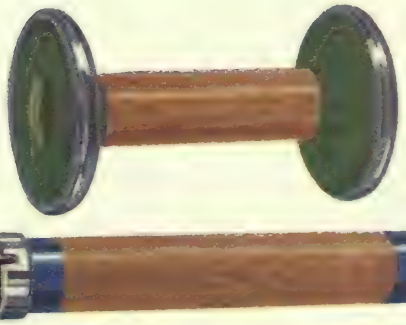

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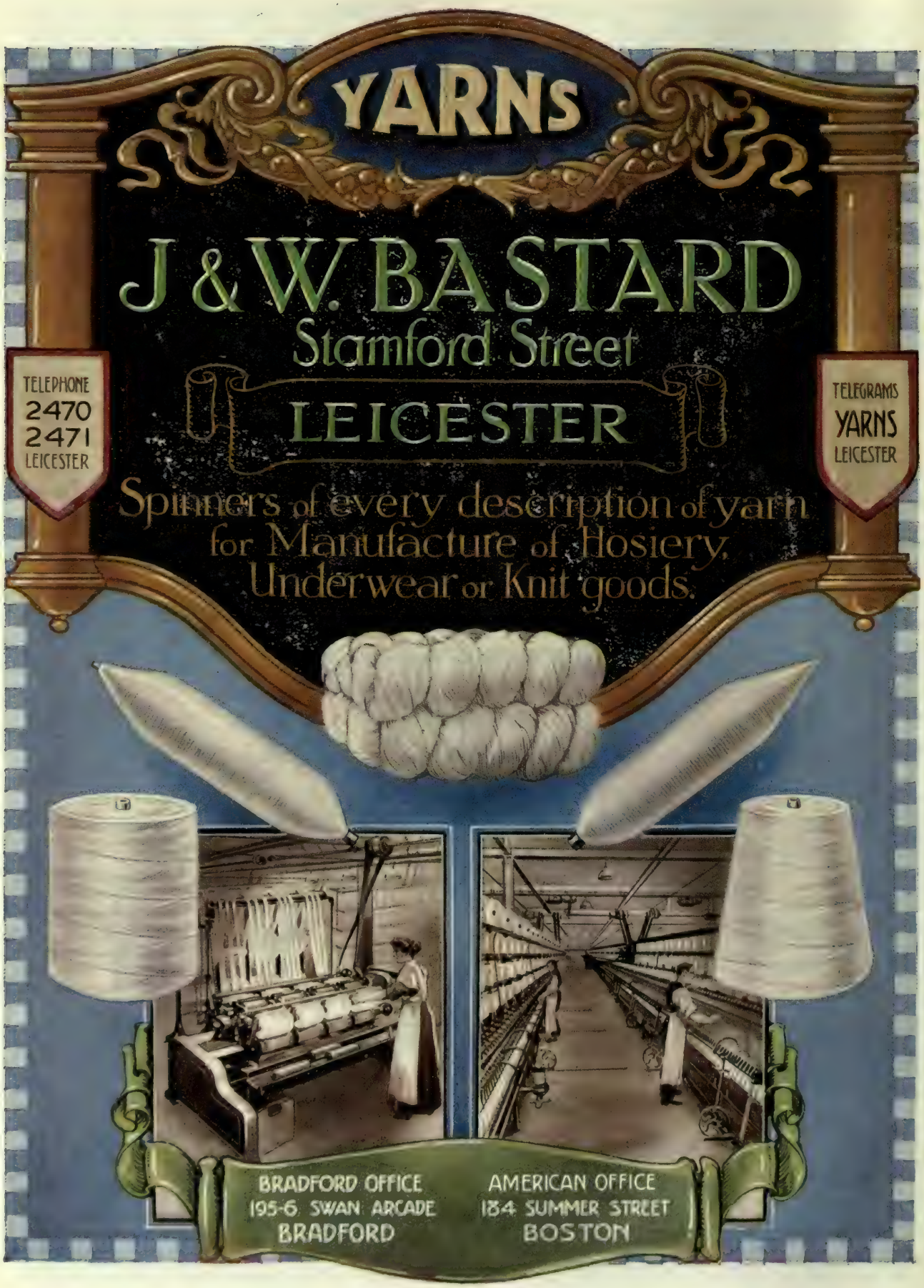
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